EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE.

A DISSERTATION SUBMITTED TO
THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULLFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING
2013-2015

CERTIFICATE

This is to certify that the dissertation entitled **"EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE"** is a bonafide work done by **Ms.J.DEVAPONMALAR** M.Sc(N)., II year, Bishop's College of Nursing, Dharapuram in partial fulfillment of the University rules and regulations for award of Masters of Science in Nursing under my guidance and supervision during the academic year 2013-2015.

Name and Signature of the Guide

Prof.Mrs.Vijayarani Prince _____

M.Sc (N).,M.A., M.A., M. Phil(N).,

Principal,

Bishop's College of Nursing,

Dharapuram.

Name and Signature of the Head of Department

Prof.Mrs.Vijayarani Prince _____

M.Sc (N).,M.A., M.A., M.Phil(N).,

Principal,

Bishop's College of Nursing,

Dharapuram.

Name and Signature of the Principal

Prof.Mrs.Vijayarani Prince _____

M.Sc (N)., M.A., M.A., M.Phil(N).,

Principal,

Bishop's College of Nursing,

Dharapuram.

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APPROVED BY DISSERTATION COMMITTEE ON _____

RESEARCH GUIDE:-

Prof. Mrs.Vijayarani Prince,
M.Sc (N)., M.A., M.A., M.Phil (N).,
Principal,
Bishop's College of Nursing,
Dharapuram. _____

CLINICAL GUIDE:-

Mrs.Tamilselvi, M.sc(N).,
Reader,
Medical Surgical Nursing Department,
Bishop's College of Nursing,
Dharapuram. _____

MEDICAL EXPERT:-

Dr.Gowrishankar Senthilvel,
M.S. (Gen. Surg)., M.ch.(uro).,
Consultant Urologist &Andrologist,
Senthil Multi speciality Hospital,
Erode. _____

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Certified Bonafide Project Work

Done By

MS.J.DEVAPONMALAR

M.Sc., Nursing II Year

Bishop's College of Nursing

Dharapuram.

Internal Examiner	**External Examiner**

COLLEGE SEAL

A DISSERTATION SUBMITTED TO
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Psalm 140:7

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ABSTRACT

Urinary incontinence is unintentional loss of urine that is sufficient enough in frequency and amount to cause physical and or emotional distress in the person experiencing it.

Urinary incontinence is caused by cystitis, urinary infection or an overactive or unstable bladder when there is an increased frequency of going to pass urine during the day and having to get up at night to urinate- nocturia, which can sometimes be related to nerve problems including stroke, dementia, multiple sclerosis or spinal cord injury. Types of urinary incontinence include stress, urge, over flow, functional and mixed urinary incontinence.

A study was done to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore.

An Evaluative approach was used for this study. The research design used was Quasi experimental non equivalent pre test and post test control group design. The conceptual framework of the study was based on the modified Imogine "King's Goal Attainment Theory" (1981). Purposive sampling technique was used to select 60 samples for the study, 30 in experimental group and 30 in control group. The tool used for the study was uro genital distress inventory to assess the level of uro genital distress, King's Health Questionnaire to assess the level of quality of life. The bladder retraining programme was given to the women with urinary incontinence for 15 minutes twice a day for a period of 30 days in experimental group. The collected data were analyzed by using descriptive and inferential statistics.

The mean post test level of uro genital distress score 8.16 (SD$\pm$ 5.347) was significantly lower than the mean pre test level of uro genital distress score 24.2(SD$\pm$ 7.224) in the experimental group. The paired't' value for uro genital distress was 15.4 which was significant at $P<0.05$ level of significance. The mean post test level of quality of life

score 173.42(SD± 100.6) was highly satisfied significantly than the mean pre test level of quality of life score 449.5 (SD± 138.1). The paired‘t’ value for quality of life was 13.83 which was significant at P<0.05 level of significance. The mean post test level of uro genital distress score in the experimental group 8.16(SD±5.347) was significantly lower than the mean post test level of uro genital distress score 30.3 (SD± 7.655) in the control group. The mean post test level of quality of life score in the experimental group 173.42 (SD±100.6) was highly satisfied significantly than the mean post test level of quality of life score 491.7(SD± 101.7) in the control group. The independent‘t’ value was 13.97 for uro genital distress and 13.1 for quality of life which were significant at P<0.05 level of significance. There was positive correlation between uro genital distress and quality of life r=0.74.There was no significant association between uro genital distress and quality of life with demographic variables.

The study findings revealed that practicing bladder retraining programme was beneficial and there was a significant reduction in uro genital distress and improvement in quality of life among women with urinary incontinence in experimental group.

CHAPTER – I

(i) INTRODUCTION

"Exercise and temperance can preserve something of our early strength even in old age."

Cicero (2011)

BACKGROUND OF THE STUDY

Health is defined as the ability to identify and realize aspirations, to satisfy needs, and to change or cope with environment. Health is therefore a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources.

Katerina., (2011)

Wellness is defined as the condition of good physical, mental and emotional health, especially when maintained by an appropriate diet, exercise, and other lifestyle modifications.

Houghton., (2007)

Illness refers to the individual's experience or subjective perception of lack of physical and or mental well being.

Ivanova., (2011)

The urinary system removes most waste products from the body. The kidneys also maintain the right balance of water and salt in the blood. The urinary system is made up of kidneys, bladder, ureters and the urethra. Some of the more common problems of the urinary system include bladder infections, urinary incontinence, kidney infections and kidney stones.

State Government of Victoria., (2014)

There are many disorders of the urinary system that require clinical care by a physician or other healthcare professional. Problems of the uro genital disorders include bladder cancer, cystocoele, Hematuria, neurogenic bladder, urinary incontinence, urinary tract infection and vesico ureteral reflux.

Columbia University., (2008)

Bladder symptoms affect women of all ages. However, bladder problems are most prevalent among older women. Women over the age of 60 years are twice as likely as men to experience incontinence. One in three women over the age of 60 years are estimated to have bladder control problem. One reason why women are more affected is the weakening of pelvic floor muscles by child birth.

U.S. Department of Health and Human Service., (2014)

Urinary incontinence is an involuntary urination, is any leakage of urine. It can be a common and distressing problem, which may have a profound impact on quality of life.

Walid.MS.et.al., (2009)

Urinary incontinence is a wide spread global disease and one of the last medical taboos to many people.

World Health Organization., (2013)

Urinary incontinence as the involuntary loss of urine which is a social or hygiene problem. It is not a life threatening disease, but affects all the strata of the society having many medical and social ramifications.

International continence society., (2013)

Uro genital distress refers to the embarrassment of urinary incontinence result in loss of self esteem and decreased ability to maintain an independent life style.

Dinesh varma., (2012)

Uro genital distress is defined as an afflict with great pain, anxiety, sorrow, trouble, worry or bother about the problems relating to the urogenital system such as urinary incontinence, urinary tract infections, cystitis and uro genital atrophy.

Harper.collins., (2012)

The risk factors for urogenital distress are age, post menopausal changes, overweight, number of children, congenital female genital tract abnormalities, urinary incontinence and pelvic organ prolapse.

Chole Borton., (2013)

The clinical manifestations of uro genital distress are vaginal dryness, dyspareunia, recurrent cystitis, non-specific vaginal burning, irritation or itching, urinary urgency, frequency and nocturia, urinary incontinence, sleep patterns are disrupted, loss of self esteem and quality of life is diminished.

William., (2012)

Treatment options for uro genital distress are conservative treatment, behavior management, bladder retraining, pelvic floor therapy and weight loss is recommended in those who are obese.

Qaseem.et.al., (2014)

Other treatment modalities given for uro genital distress are biofeedback, electrical stimulation, intra vaginal devices, acupuncture, lifestyle interventions and medications.

Abrams.et.al., (2012)

Bladder retraining is an important form of behavior therapy that can be effective in treating uro genital distress caused by urinary incontinence. The goals are to increase the amount of time between emptying bladder and the amount fluids bladder can hold. It also can diminish leakage and the sense of urgency associated with the problem.

Women's Incontinence center., (2014)

Bladder retraining such as kegel exercise is the first line treatment for the women with urinary incontinence.

Dollar.et.al., (2014)

The types of kegel exercise are elevators, quickies and long haul. The other name for kegel exercise are pelvic floor exercise, pelvic floor muscle training. Bladder retraining helps to improve the pelvic floor muscle function by reducing the uro genital distress and improving the quality of life.

Hirakawa., (2013)

Bladder retraining programme helps to prevent urinary incontinence, prolapses and many other problems of the pelvic floor that are often associated with aging and decreased muscle tone. Especially it is important for women because as much as 55% report experiencing some degree of uro genital distress during their life time.

Dumoulin.et.al., (2010)

Complications of urinary incontinence include skin infections, rashes and sores due to constantly wet skin, repeated urinary tract infections and negative impact on personal life.

Goldman.et.al., (2012)

Quality of life is defined as the degree of satisfaction an individual has regarding a particular style of life.

Miller.et.al., (2007)

Urogenital distress is consistently associated with adverse effects on quality of life for patients. Adverse effects include social isolation, loneliness and sadness, psychiatric illness including depression, embarrassment that affects the daily living, stigmatization, effects on sexual relationships and disturbed sleep. Practices inconveniences associated with the leakage of urine such as frequent changes of clothes and bed linen and the need to bathe more often will have adverse effects on quality of life.

Avery.et.al., (2010)

The patient's perception of the impact of their urinary incontinence on their life style is important. Even mild uro genital distress has a significant effect on a patient's quality of life.

Plymouth.et.al., (2006)

The nurses and health care workers must be aware and take into consideration the potentially serious adverse effects. Patients and family should be offered information on the investigation and treatment options available to them.

Burgio.et.al., (2005)

World incontinence week is an initiative of the international continence society and is coordinated in Australia by the continence foundation. World incontinence week is celebrated from 23 to 29 June. This annual event is organized by the International

continence society and aims to promote awareness of continence issues with numerous events being run globally.

Continence Foundation of Australia., (2014)

NEED FOR THE STUDY

Globally, up to 35% of the population over the age of 60 years is estimated to be incontinent. Urinary incontinence affects 200 million people worldwide.

U.S. Department of Health and Human Services., (2014)

In the world literature looking at prevalence rates of different types of urinary incontinence is as follows: stress urinary incontinence was reported more commonly at 49%, mixed urinary incontinence at 29%, urge urinary incontinence at 22%.

Joey Hanekom., (2013)

Statistics showed that urinary incontinence increases with age, affecting up to 57 percent of women between 40 and 60 years old, and three –quarters of women of 75 years and older.

Mary Elizabeth Dallas., (2014)

Urinary incontinence is twice as common in women as in men. Pregnancy, child birth and menopause are major reasons of the increased prevalence of incontinence in women as compared to men.

Women's Health Government., (2014)

Between the ages 18 and 44 years, approximately 24% of women experience incontinence. For women over age 60 years, approximately 23% deal with urinary incontinence.

American Medical systems., (2014)

The highest prevalence of stress urinary incontinence was found in Caucasian American(range-23% to 67%).The lowest prevalence of urinary incontinence was found among Singaporean females (4-8%).Although the prevalence of stress urinary incontinence is high, the health seeking behaviors was found to be low worldwide, with only 13%-15% of women with symptoms of incontinence seeking medical care.

Perera., (2014)

Prevalence of urinary incontinence in women living in the community increases with age, from 19% at age younger than 45 years to 29% in age 80 years or older; the rate levels off from age 50 to age 70 years, after which prevalence again increases. Current national estimates are that more than 20 million women have urinary incontinence or have experienced it at some point in their lives. For women, stress incontinence decreases with age, whereas urge incontinence increases with age. Information comparing prevalence in racial or ethnic groups suggests that urinary incontinence is prevalent in all ethnic groups, with some suggestion of higher rates among white women.

National Institute of Health., (2007)

In some European countries, a prevalence of 15-40% has been reported and in the United States prevalence is as high as 37%.Minimal data is available for urinary incontinence prevalence studies in the Republic of South Africa or other less developed countries. It has been suggested that the prevalence of incontinence and urinary dysfunction globally is lower in Black and Asian women than in white women. In contradiction in the Western Cape, the prevalence of daily urinary incontinence in Black women was 17.2%, Cape Coloured women 12.8% and white women 13.2%.

South African Uro gynecology Association., (2014)

In developing countries of Asia, South America and African continent, recent statistics showed that 348 million people worldwide experienced any type of urinary incontinence in 2008 and this number is projected to increase to 423 million by the year 2018.Generally urinary incontinence (UI) is more common in women and the burden of this condition is greatest in developing countries. In 2008, a total of 250 million women in Asia, South America and Africa were affected by urinary incontinence and this number is expected to increase to approximately 303 million by 2018.The impact of urinary incontinence is much higher among the middle aged and older women, and in these categories of women, its prevalence is estimated to be 40% and 50% respectively.

Joshua Kanaabi., (2013)

The prevalence of urinary incontinence in Asia has been estimated at 12 percent according to one study conducted by the Asian Society of Female Urology. Urinary incontinence is a socially distressing problem with a high degree of bother, and though it severely impacts on the quality of life in women; women typically do not discuss their problem with others. Research from the west implies that it takes women at least five years to seek help. The problem with suffering the disorder in silence is two-fold; the compromise on the quality of life.

Dinesh Varma., (2012)

In Australia, Urinary incontinence affects up to 13% of men and up to 37% of women. An Australian study found that over a three month period, 50% of women aged 45-59 years of age experienced some degree of mild, moderate or severe urinary incontinence . 70% of people with urinary leakage do not seek advice and treatment for their problem. An estimated 316,500 people experienced severe incontinence. Number of people who always needed help or supervision with their bladder or bowel control was 144,400.

Australian Institute of Health and Family Welfare., (2012)

In America, 25 million adult suffering from some form of urinary incontinence, 75% – 80% of those are women. One in four women over the age of 18 years experience episodes of leaking urine involuntarily. On average, women wait 6.5 years from the first time they experience symptoms until they obtains a diagnosis of bladder control problems. Stress urinary incontinence, the most prevalent form of incontinence among women affects an estimated 15 million adult women in the U.S.(united states).About 17% of women and 16% men over 18 years old have overactive bladder (OAB) and an estimated 12.2 million adults have urge incontinence.

National Association for incontinence., (2014)

In United states, The Agency for Health Care Policy and Research (AHCPR) cites studies indicating that one in four women ages 30 to 59 has experienced urinary incontinence. Approximately 1 in 20 or 4.78% or 13 million people in USA. It is estimated that at least 10 million women suffer from distressing urinary incontinence.

Agency for Health Care Policy and Research., (2009)

In United Kingdom, National Health Service prevalence estimates that between 3 and 6 million people have some degree of urinary incontinence.

Irwin.et.al., (2006)

In Canada, at least one in eight Canadians aged 65years and older suffered from urinary incontinence.14% of women and 9% of men aged 65years and older reported having urinary incontinence and rates were higher still among adults 85 and older.22% of women and nearly 19% of men reported suffering from urinary incontinence.

Helen Branswell., (2014)

In Brazil, recent incidence showed 19.7% women suffer from uro gynecological problems. The prevalence of urinary incontinence is between 29 and 75%. Climacteric women showed 35% of stress urinary incontinence.

Joaol. Amaro.et.al., (2009)

In Africa, urinary incontinence affects 30% of women by the time they reach 50 years of age and continue to increase thereafter. Symptoms vary in severity and adversely impact on the physical and psychosocial well being of affected individuals.

Veronique.C.et.al., (2010)

The prevalence of urinary incontinence reported in Germany (34%), France (32%) and in Spain (15%) among women with the age group of 40-70 years.

Jarret.et.al., (2006)

In German alone it is estimated that 5-6 million men and women are affected by urinary incontinence.13% of all women and 5% of all men;19% of women over 60 years old and 10% of men over 60 years old and nearly 30% of them over 80 years across both sexes.

Dreseden., (2014)

In Korea, approximately 37-60% of women experience urinary incontinence and 64-65% of elderly showed symptoms of urinary incontinence. The most common types of

urinary incontinence in the middle aged Korean women are the stress and mixed type.

Park.et.al., (2005)

In Malaysia, prevalence of urinary incontinence ranged from 7% to 42% among elderly women residing in the community.

Sidik., (2010)

In china, the overall prevalence of urinary incontinence among Chinese women between the age group of 65 years and older estimated in Shanghai-23.3% and in Beijing -22.1% were reported. The prevalence rate of stress urinary incontinence was estimated to be 14%, urge incontinence-3% and mixed incontinence 6.3%.

Wang.et.al., (2014)

In Turkey, the prevalence rate of urinary incontinence in adult women was between 12.2% and 78%.There is a positive relationship between frequency of incontinence and aging, menopause and vaginal delivery.

Elcin.et.al., (2012)

In Pakistan, the overall prevalence of urinary incontinence was 11.5%.The most common subtype was stress incontinence with a prevalence of 4.7%; mixed incontinence (2.8%) and urge incontinence (3.2%).

Jokhio., (2013)

In Muscat, the prevalence of urinary incontinence was 33.8% among women with the age group of 20-60 years.

Vidhya., (2013)

In India, the incidence of urinary incontinence -12%.About 25% post menopausal women suffer from some form of urinary incontinence.

Ranjit chakraborti., (2013)

In Chandigarh, the prevalence of stress urinary incontinence -72%, urge incontinence-19.1% and mixed incontinence- 8.8% were reported.

Abha.et.al., (2007)

In Arunachal Pradesh, the overall prevalence of urinary incontinence was 10%.The most prevalent type of incontinent was stress incontinence (57%), followed by urge incontinence (23%) and mixed incontinence (20%).

Trupti., (2010)

In Lucknow, the prevalence of urinary incontinence estimated that 73.8% had stress urinary incontinence, 16.8% had mixed urinary incontinence and 9.5% had urge urinary incontinence.

Uma singh., (2013)

In Tamilnadu, the prevalence of urinary incontinence among women estimated that 58% reported stress urinary incontinence or intermittent urine leakage and between 35-40% reported mixed symptoms of urinary incontinence.

Vasantha., (2006)

In Chennai, the incidence of urinary incontinence estimated that 3 out of 10 women with urinary problems have some form of urinary leak showed alarming high prevalence of stress urinary incontinence.

Dinesh varma., (2009)

In Thoraippakkam, the prevalence of urinary incontinence revealed that 31% of the women thought that urinary incontinence was bothersome and required help; 38% seem to be aware of the availability of treatment; only 13% were not willing to approach a doctor. The main reasons for hesitating to consult a doctor ranged from shyness [22%] and the notion that incontinence was a passing problem [31%], to being unsure of which specialist they needed to consult [34%].

Gunasekaran., (2013)

In Coimbatore, the prevalence rate of urinary incontinence survey revealed that among 41 women with incontinence more than 50% of the women had stress urinary incontinence, 19.5% of the women complained of urge urinary incontinence and 12.2% of them complained of mixed type (both stress and urge).

Bharanidharan., (2009)

In sulur, the prevalence study showed that 10-55% of the women affected with the urinary incontinence were between the age group of 15-64 years.

Mahalakshmi., (2013)

A study was conducted in Kolkata to determine the effectiveness of bladder training programme such as pelvic floor muscle exercise among women with stress urinary incontinence between the age group of 40-45 years. Pre and post test was conducted using a questionnaire for female urinary incontinence diagnosis (QUID) to measure the degree of severity. After the intervention for a period of 6weeks, the results showed that there was a significant reduction in urinary incontinence. The mean improvement revealed 8.04 $\pm$ 1.02.It was proposed that conservative treatment such as bladder training programme was effective as well as less expensive and easily manageable.

Ashish kumar.et.al., (2012)

A study was conducted to assess the effectiveness of inpatient bladder retraining. A retrospective case-note analysis was conducted over a period of 24 months. Outcome measures were decrease in incontinence episode frequency (IEF) and nocturia and increase in interval between voids. Subjective improvement was assessed on a four-point scale. The study revealed statistically significant decrease in incontinence episode frequency (IEF) and nocturia and increase in the interval between voids. Twenty-three percent was cured of their symptoms, 36% reported improvement and 27% did not find any change.

Amidabha.et.al., (2010)

Recent psychologic studies have suggested that young or middle- aged women with urinary incontinence find it difficult to focus on and rationally address this disorder. It is perceived as a problem affronting one's personal control, and this may explain patients with objective incontinence who insists that they have ''no such problem''. Because this disorder may evoke partial or complete denial, this problem may be subordinated in favour of other health care priorities.

Herzog., (2014)

Research has shown that bladder retraining can reverse or reduce the symptoms of urge or stress incontinence. An analysis of the bladder retraining programme showed reduced urinary symptoms and improved quality of life. There were statistically significant

reductions in nocturia and episodes of urinary incontinence. There was also a significant increase in the mean amount of urine voided in milliliters.

Karon., (2005)

Mary.P.Galea., (2005) conducted an interventional study to determine the effect of bladder retraining to reduce uro genital distress and to improve quality of life among women between the age group of 60-70 years. Self report questionnaire and pad weight test was used to assess the urine loss. King's Health questionnaire was used to assess the quality of life; degree of bother was assessed by using visual analogue scale. The study findings revealed that bladder retraining is effective in relieving symptoms of uro genital distress and in improving quality of life.

Marian Wiegersma.et.al., (2014) conducted a randomized control trial to assess the effect of pelvic floor muscle training compared with watchful waiting in women with the age group of 55 years and older with symptomatic uro genital distress like pelvic pain, urinary or bowel symptoms in a Dutch community. Symptoms of bladder, bowel and pelvic floor were measured using Pelvic floor distress inventory-20(PFDI-20). Uro genital distress inventory-6 to assess the uro genital distress. Of the 287 women, 145 received pelvic floor muscle training and 142 were in the group of watchful waiting. Participants in the intervention group improved by (on average) 9.1(95% confidence interval 2.8 to 15.4) than in watchful waiting group (P=0.005).Of the women in the pelvic floor muscle training group, 57% (82/145) reported an improvement in overall symptoms from the start of the study compared with 13%, (18/142) in the watchful waiting group (P<0.001).

The investigator observed during the clinical experience, most of the female patients above 50 years were having urinary incontinence. They were facing discomforts like wetting their dresses, frequency and urgency of passing urine and psychologically worried about their distress and the women with severe urinary distress were undergoing surgery. Hence the researcher felt to help the woman with urinary incontinence by giving bladder retraining programme to reduce uro genital distress and to improve their quality of life.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore.

OBJECTIVES

1. To assess the pre test and post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group.
2. To compare the pre test and post test level of uro genital distress among women with urinary incontinence in experimental group.
3. To compare the pre test and post test level of quality of life among women with urinary incontinence in experimental group.
4. To find the effectiveness of bladder retraining programme on level of uro genital distress among women with urinary incontinence between experimental and control group.
5. To find the effectiveness of bladder retraining programme on level of quality of life among women with urinary incontinence between experimental and control group.
6. To find the relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.
7. To find the association between the post test level of uro genital distress among women with urinary incontinence and their selected demographic variables in experimental group.
8. To find the association between the post test level of quality of life among women with urinary incontinence and their selected demographic variables in experimental group.

OPERATIONAL DEFINITIONS

EFFECTIVENESS

It means producing an intendent result.

Wojtczak., (2002)

In this study it refers to determine the extent to which the bladder retraining programme has brought about the significant difference between pre and post test level of uro genital distress and quality of life which is measured by using statistical measurement and its scores.

BLADDER RETRAINING PROGRAMME

Bladder retraining is a program which teaches the people to resist the urge to void and gradually expand the intervals between voiding.

Basavanthappa B.T., (2003)

In this study bladder retraining programme includes kegel's exercise such as elevators, quickies and long haul is used. The duration of procedure is 15 minutes which is given for 2 times per day in the morning and evening and continued for 30 days in experimental group under the supervision of the researcher.

Different kinds of Kegel's exercises

1. Elevators:

The elevator Kegel exercise is a process that helps to strengthen the muscles higher up in the uro genital area. The initial hold is at the opening to the vagina. Without relaxing, tighten the muscles further, focusing on tightening the muscles higher up the urethra. Finally, without relaxing, try to tighten the muscles even higher up towards the bladder neck and hold for five seconds. Continued for 5 minutes.

2. Quickies:

Squeezing and releasing pelvic muscles as fast as five times in a row. Relax for 10 seconds, and then repeat. Continued for 5 minutes.

3. Long Haul:

Pulling pelvic floor muscles as tight as for as long as possible. When patient feels that the muscle is tightened then advised to stop and continue for 5 minutes.

UROGENITAL DISTRESS:

Urogenital distress refers to the embarrassment of urinary incontinence which results in loss of self esteem and decreased ability to maintain an independent life style.

BLACK.M.JOYCE., (2005)

In this study uro genital distress refers to the involuntary release of urine which is measured by using uro genital distress inventory scale and its scores.

QUALITY OF LIFE:

The degree of satisfaction an individual has regarding a particular style of life.

World Health Organization., (2006)

In this study Quality of life refers to the general well being of women which is measured by using King's Health Questionnaire and its scores.

WOMEN WITH URINARY INCONTINENCE:

Urinary incontinence is an uncontrolled leakage of urine that makes difficult to get to the bathroom facilities on time. The age group is categorized as adult women between the age group of 20-59 years and older women from the age of 60 years and over.

World Health Organization., (2013)

In this study it refers to women with urinary incontinence between the age group of 55-70 years residing in the selected old age homes.

URINARY INCONTINENCE:

Urinary incontinence is an uncontrolled leakage of urine that makes difficult to get to the bathroom facilities on time.

Lewis.et.al., (2013)

In this study urinary incontinence refers to unable to control leakage of urine. The degree of urinary incontinence is measured by using Revised Urinary Incontinence Scale and its scores, which was used to select the samples for the present study.

HYPOTHESES:

H_1: The mean post test level of uro genital distress score is significantly lower than the mean pre test level of uro genital distress scores in experimental group.

H_2: The mean post test level of quality of life score is highly satisfied significantly than the mean pre test level of quality of life scores in experimental group.

H_3: The post test level of uro genital distress scores in experimental group is significantly lower than the mean post test level of uro genital distress scores in control group.

H_4: The mean post test level of quality of life scores in experimental group is highly satisfied significantly than the mean post test level of quality of life scores in control group.

H_5: There will be significant relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.

H_6: There will be significant association between the post test level of uro genital distress scores among women with urinary incontinence and their selected demographic variables in experimental group.

H_7: There will be significant association between the post test level of quality of life scores among women with urinary incontinence and their selected demographic variables in experimental group.

ASSUMPTIONS:

1. A woman with urinary incontinence may experience uro genital distress and feels low quality of life.
2. Bladder retraining programme may reduce the uro genital distress and improve the quality of life.
3. Nurses play a vital role in reducing the uro genital distress and improving the quality of life among women with urinary incontinence by providing bladder retraining programme.

DELIMITATION:

This study is delimited to,

1. Data collection period was only 6 weeks.
2. Sample size was limited to 60.

PROJECTED OUTCOME:

Bladder retraining programme reduces the severity of urinary incontinence which reduces uro genital distress and improves quality of life among women with urinary incontinence. It helps to reduce the cost and duration of treatment. It promotes the activities of daily living and reduces the psychological impacts and improves the self esteem.

(ii) CONCEPTUAL FRAME WORK

The purpose of the conceptual framework was to make the students and researcher to identify and analyze events in specific nursing situations. This framework was based on ‘‘King’s Goal attainment theory-1981’’ suggests the essential characteristics of nursing and those properties that have persisted inspite of environmental changes. This theory was related to the means of analyzing the interactions.

Major components of theories of goal attainment were stated in theorist interpersonal system in which two people were stated in theorist interpersonal system in which two people who are stranger come together to help and be helped to maintain a state of health that functioning in roles.

PERCEPTION

According to the theorist perception can be defined as ‘‘each person’s representation of reality’’. This concept includes the import and transformation of energy and processing, storing and exporting information. Perception were related to past experiences concept of self, socio-economic groups, biological inheritance and educational background.

In this study, perception revealed the uro genital distress and quality of life perceived by the women and assessing the level of uro genital distress and quality of life by the nurse. The researcher collected the demographic variables such as age, religion, marital status, education and number of children. The screening tool -Revised urinary incontinence scale was used to assess the degree of urinary incontinence. The Pre test was done by using uro genital distress inventory and its scores were interpreted as not at all distressed, slightly distressed, moderately distressed and greatly distressed; King’s Health questionnaire were used to assess the quality of life and its scores were interpreted as highly satisfied, moderately satisfied and less satisfied in both experimental group and control group.

JUDGEMENT

According to the theorist, judgement is a mental action that decides to act, it focuses on the intervention that is going to be in action. In this study, the nurse decides to reduce the uro genital distress and to improve the quality of life among women with urinary

incontinence. The woman needs a reduction in uro genital distress and improvement in quality of life to promote their functional activities.

ACTION

According to the theorist, action is defined as a sequence of behavior, involving mental and physical action. First the mental action helps to recognize the presenting condition and physical action helps to begin activities related to those conditions and finally mental action in effort with physical action seeking to achieve the goals.

In this study, the action represents deciding to teach the bladder retraining programme which includes Kegel exercises such as elevator, quickies and long haul by the nurse to the women with urinary incontinence in the experimental group and the women decides to practices the bladder retraining exercises regularly.

REACTION

According to the theorist, reaction is the sequence of behavior described in action. In this study, it includes the efforts taken by the nurse by means of intervention to the experimental group. The nurse explains the procedure to the experimental group and gets the consent from the samples. In experimental group the women with urinary incontinence understands the importance of procedure and provides cooperation to perform the bladder retraining exercises for 30 days.

INTERACTION

According to the theorist, interaction is defined as when individuals and groups interact, they respond to each other mutually or it is the interdependence in the situation in which both achieve goals. Verbal and non-verbal communication is present in every interaction.

In this study, interaction represents the procedure done by the nurse for the experimental group; In bladder retraining programme, kegel exercise such as elevator, quickies and long haul were given for 15 minutes morning and evening for a period of 30 days.

TRANSACTION

According to the theorist, transaction may be defined as purposeful interaction that lead to goal attainment. It concerns both verbal and non-verbal communication. A transaction is affected by the actions, judgements, perceptions and reaction of human beings. Goal attainment occurs as a result of a transaction between a nurse and a client.

In this study, the goal attainment was measured by the post test that was done in experimental group and control group using uro genital distress inventory to assess the degree of uro genital distress and King's Health Questionnaire to assess the quality of life.

Thus, King states that a professional nurse with special knowledge, skills and personal problems meet the strangers in natural environment. They interact mutually to identify problems and to achieve goals.

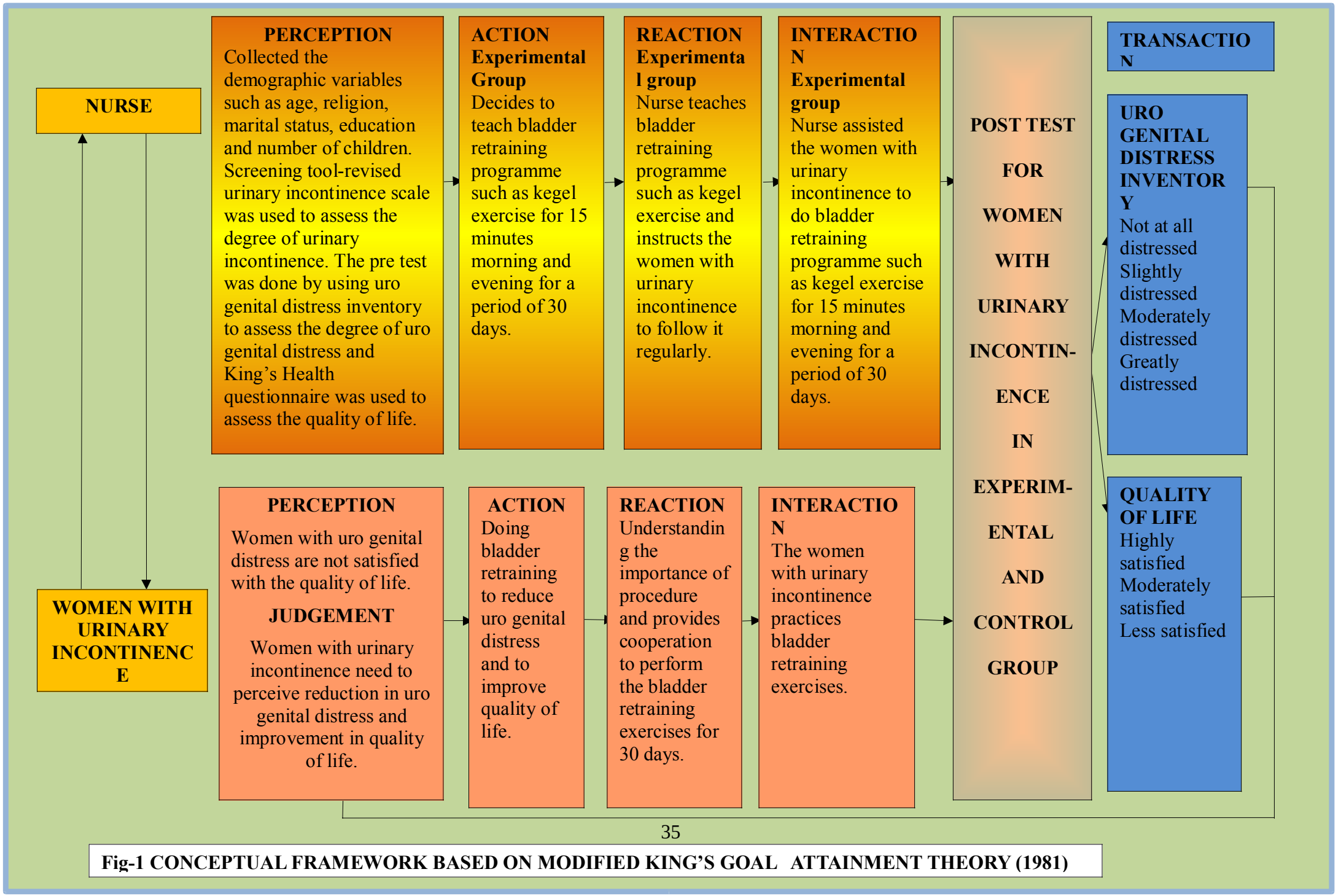


Fig-1 CONCEPTUAL FRAMEWORK BASED ON MODIFIED KING'S GOAL ATTAINMENT THEORY (1981)

CHAPTER-II
REVIEW OF LITERATURE

This chapter deals with the related review of literature about incidence and prevalence of urinary incontinence, bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence and studies related to nurses role in bladder retraining programme. The literatures are classified under the following headings.

PART - I

Overview of

a) Urinary incontinence
b) Uro genital Distress
c) Bladder retraining programme
d) Quality of life

PART- II

SECTION A: Studies related to Incidence and Prevalence of Urinary incontinence among women.

SECTION B: Studies related to effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence.

SECTION C: Studies related to nurses role in bladder retraining programme among women with urinary incontinence.

PART – I

a) OVERVIEW OF URINARY INCONTINENCE

INTRODUCTION

Urinary incontinence is the unintentional passing of urine. It is a very common problem and is thought to affect millions of people worldwide. It is not clear exactly how many people are affected, but it is estimated that between three and six million people in the UK (United Kingdom) have some degree of

urinary incontinence. Urinary incontinence affects about twice as many women as men and becomes more common with age**.**

Urinary incontinence (UI) is a common symptom that can affect women of all ages, with a wide range of severity and nature. While rarely life-threatening, incontinence may seriously influence the physical, psychological and social wellbeing of affected individuals. The impact on the families and careers of women with urinary incontinence may be profound, and the resource implications for the health service consultation.

National Institute for Health Care Guidelines., (2006)

DEFINITION

Urinary incontinence is the loss of bladder control .It is a common and often embarrassing problem. The severity of urinary incontinence ranges from occasionally leaking urine while cough or sneeze to have an urge to urinate that's so sudden and strong don't get to a toilet in time.

Mayo clinic., (2011)

INCIDENCE

The prevalence of urinary incontinence was reported in 10 percent of women in an ethnically diverse urban population. The prevalence of incontinence increases with age. In a large representative United States survey of non pregnant women, moderate or severe urinary incontinence was reported to affect 7 percent of women ages 20 to 39; 17 percent ages 40 to 59; 23 percent ages 60 to 79 and 32 percentage ≥ 80 years.

Cathrine., (2013)

ETIOLOGY

Urinary incontinence isn't a disease, it's a symptom. It can be caused by everyday habits, underlying medical conditions or physical problems. A thorough evaluation by doctor can help to determine what's behind the incontinence.

- **Causes of temporary urinary incontinence**

Certain foods, drinks and medications can cause temporary urinary incontinence. A simple change in habits can bring relief.

- **Alcohol:** Alcohol acts as a bladder stimulant and a diuretic, which can cause an urgent need to urinate.
- **Over hydration:** Drinking a lot of fluids, especially in a short period of time, increases the amount of urine in bladder has to deal with.
- **Caffeine:** Caffeine is a diuretic and a bladder stimulant that can cause a sudden need to urinate.
- **Bladder irritation:** Carbonated drinks, tea and coffee with or without caffeine artificial sweeteners, corn syrup, and foods and beverages that are high in spice, sugar and acid, such as citrus and tomatoes, can aggravate the bladder.
- **Medications:** Heart medications, blood pressure drugs, sedatives, muscle relaxants and other medications may contribute to bladder control problems.

Easily treatable medical conditions also may be responsible for urinary incontinence.

- **Urinary tract infection:** Infections can irritate the bladder, causing to have strong urges to urinate. These urges may result in episodes of incontinence, which may be the only warning sign of a urinary tract infection. Other possible signs and symptoms include a burning sensation while urinate and foul-smelling urine.

- **Constipation:** The rectum is located near the bladder and shares many of the same nerves. Hard, compacted stool in the rectum causes these nerves to be overactive and increase urinary frequency. In addition, compacted stool can sometimes interfere with the emptying of the bladder, which may cause overflow incontinence.

→ **Causes of persistent urinary incontinence**

Urinary incontinence can also be a persistent condition caused by underlying physical problems or changes, including:

- **Pregnancy and childbirth:** Pregnant women may experience stress incontinence because of hormonal changes and the increased weight of an enlarging uterus. In addition, the stress of a vaginal delivery can weaken muscles needed for bladder control. The changes that occur during childbirth can also damage bladder nerves and supportive tissue, leading to a dropped (prolapsed) pelvic floor. With prolapse, the bladder, uterus, rectum or small bowel can get pushed down from the usual position and protrude into the vagina. Such protrusions can be associated with incontinence.

- **Changes with aging:** Aging of the bladder muscle leads to a decrease in the bladder's capacity to store urine and an increase in overactive bladder symptoms. Risk of overactive bladder increases in blood vessel disease, so maintaining good overall health including stopping smoking, treating high blood pressure and keeping the weight within a healthy range can help to reduce symptoms of overactive bladder. After menopause women produce less estrogen, a hormone that helps keep the lining of the bladder and urethra healthy. With less estrogen, these tissues may deteriorate, which can aggravate incontinence.

- **Hysterectomy:** In women, the bladder and uterus lie close to one another and are supported by many of the same muscles and ligaments. Any surgery that involves a woman's reproductive system — for example, removal of the uterus (hysterectomy) may damage the supporting pelvic floor muscles, which can lead to incontinence.

- **Painful bladder syndrome [interstitial cystitis]:** This chronic condition causes painful and frequent urination and rarely, urinary incontinence.

- **Bladder cancer or bladder stones.** Incontinence, urinary urgency and burning with urination can be signs and symptoms of bladder cancer or bladder stones. Other signs and symptoms include blood in the urine and pelvic pain.

- **Neurological disorders.** Multiple sclerosis, Parkinson's disease, stroke, a brain tumor or a spinal injury can interfere with nerve signals involved in bladder control, causing urinary incontinence.

- **Obstruction.** A tumor anywhere along urinary tract can block the normal flow of urine and cause incontinence, usually overflow incontinence. Urinary stones which are hard, stone-like masses that can form in the bladder may be to blame for urine leakage. Stones can be present in kidneys, bladder or ureters.

Mayo clinic., (2011)

RISK FACTORS

The following factors increase the risk of developing urinary incontinence:

- **Sex-** Women are more likely to have stress incontinence than men. Pregnancy, childbirth, menopause and normal female anatomy account for this difference. However, men with prostate gland problems are at increased risk of urge and overflow incontinence.

- **Age-** As get older, the muscles in the bladder and urethra lose some of their strength. Changes with age reduce the bladder capacity to hold and increase the chances of involuntary urine release. However, getting older doesn't necessarily mean that will have incontinence. Incontinence isn't normal at any age except during infancy.
- **Being overweight-** Being obese or overweight increases the pressure on the bladder and surrounding muscles, which weakens them and allows urine to leak out when cough or sneeze.

- **Smoking-** A chronic cough associated with smoking can cause episodes

of incontinence or aggravate incontinence that has other causes. Constant coughing puts stress on the urinary sphincter, leading to stress incontinence. Smoking may also increase the risk of overactive bladder by causing bladder contractions.

- **Other diseases-** Kidney disease or diabetes may increase the risk for incontinence

Mayo clinic., (2011)

TYPES OF URINARY INCONTINENCE

❖ **Stress Incontinence**

Stress incontinence may happen when there is an increase in abdominal pressure such as when exercise, laugh, sneeze, or cough. Urine leaks due to weakened pelvic floor muscles and tissues.

Causes of stress incontinence include pregnancy and childbirth, which causes stretching and weakening of the pelvic floor muscles. Other factors may also increase the risk for stress incontinence, such as being overweight or obese, underwent prostate surgery, and taking certain medications such as diuretics.

Brunner., (2010)

❖ **Urge Incontinence**

Urge incontinence is often referred to as overactive bladder. In this condition there is an urgent need to go to the bathroom and may not get there in time, urine leaks out.

Causes of overactive bladder include:

- Damage to the bladder nerves
- Damage to the nervous system
- Damage to muscles

Conditions such as multiple sclerosis, Parkinson's disease, diabetes, and stroke can affect nerves, leading to urge incontinence. Other conditions such as bladder infections, bladder stones, and use of certain medications can also

contribute to symptoms. Some women have both of these types of urinary incontinence - stress and urge. This is known as mixed urinary incontinence.

Brunner., (2010)

❖ **Overflow Incontinence**

Overflow incontinence is not able to empty the bladder appropriately. As the bladder fills, the leakage occurs. This is more common in men with symptoms of frequent dribbling of urine.

Causes of overflow incontinence include:

1. Weak bladder muscle
2. Blockage of the urethra, such as by prostate enlargement
3. Medical conditions, such as tumours, that cause obstruction of urine flow

Brunner., (2010)

❖ **Functional Incontinence**

With functional incontinence, physical problems such as arthritis, or cognitive problems such as dementia, prevent from getting to the bathroom in time.

Web med., (2011)

PATHOPHYSIOLOGY

Urinary continence in the female depends on urine being stored in a receptive bladder closed by a competent sphincter mechanism.

Incontinence can result from a failure of storage, i.e. detrusor instability or a failure of the sphincter mechanism.

↓

Stress incontinence. **Sullivan., (2000)**

Although the majority achieve continence early in childhood, there are a number of insults brought to bear on the continence mechanism other than advancing age. In addition there is a complex neural control which co-ordinates urethral and bladder function to alter from storage to void at socially acceptable times.

Due to child birth neuro muscular damage to the pelvic floor occurs

↓

The onset of menopause with estrogen deprivation

↓

Increase the risk of urinary tract infection

↓

Affects the bladder function and causing incontinence

Sullivan., (2000)

CLINICAL MANIFESTATIONS

The main symptom of urinary incontinence is a problem controlling urination.

- Symptoms of stress incontinence:
  - Involuntary release of urine, especially when cough, sneeze, or laugh
  - Leaking a small to moderate amount of urine
- Symptoms of urge incontinence:
  - Frequent and sudden uncontrollable need to urinate
  - May leak a moderate to large amount of urine, although a small amount is possible

It is common for a woman to have symptoms of both types of incontinence. This is called mixed incontinence.

Webmed., (2013)

COMPLICATIONS

Complications of chronic urinary incontinence include,

- **Skin problems-** Urinary incontinence can lead to rashes, skin infections and sores (skin ulcers) from constantly wet skin.
- **Urinary tract infections-** Incontinence increases the risk of repeated urinary tract infections.
- **Changes in activities-** Urinary incontinence may keep from participating in normal activities such as stop exercising, quit attending social gatherings or even stop venturing away from familiar areas where we know the locations of toilets.
- **Changes in work life-** Urinary incontinence may negatively affect work

life. Urge to urinate may cause to have to get up often during meetings. The problem may disrupt concentration at work or keep awake at night, causing fatigue.

- **Changes in personal life-** Perhaps most distressing is the negative impact on incontinence which can affect personal life. Family may not understand the behavior or may grow frustrated at many trips to the toilet. May avoid sexual intimacy because of embarrassment caused by urine leakage. It's not uncommon to experience anxiety and depression along with incontinence.

Mayo clinic., (2011)

DIAGNOSTIC STUDIES

- **HISTORY COLLECTION**

Thorough history collection is necessary. The following questions help to identify the causes of urinary incontinence.

1. Whether the urinary incontinence occurs while cough or laugh
2. Whether need toilet frequently during the day or night
3. Whether have any difficulty in passing urine when going to the toilet
4. Whether currently taking any medications
5. How much use of fluid, alcohol or caffeine drink

- **BLADDER DIARY**

Keeping diary about bladder habits for at least three days helps to identify the cause of urinary incontinence.

Bladder diary should include details such as:

- how much fluid drank
- the types of fluid drank
- how often need to pass urine
- the amount of urine passed
- how many episodes of incontinence experienced
- how many times experienced an urgent need to go to the toilet

Webmed., (2012)

TEST AND EXAMINATIONS

- **PHYSICAL EXAMINATION**

1. Assessment of the health of urinary system.
2. Pelvic examination for females, asking the patient to cough to see if any urine leaks out.
3. Vaginal examination.

In over half of women with stress incontinence, part of the neck of the bladder may bulge into the vagina. General Physician may place their finger inside the vagina and ask to squeeze it with pelvic floor muscles. These are the muscles that surround bladder and urethra (the tube through which urine passes out of the body). Damage to pelvic floor muscles can lead to urinary incontinence.

Lewis., (2011)

4. Dip stick test:

If incontinence is caused by an infection, a sample of urine may be tested for bacteria. A small, chemically treated stick will be dipped into urine sample. It will change colour if bacteria is present. The dipstick test can also check the blood and protein levels in the urine.

5. Residual urine test:

If physician suggest overflow incontinence, residual urine test can be done. A residual urine test involves inserting a thin, flexible hollow tube, called a catheter, into urethra and feeding it through to the bladder. Any urine that is left in the bladder will drain out through the catheter and the amount can be measured.

Lewis., (2011)

FURTHER TESTS

If the cause of the urinary incontinence is not able to diagnose with the above tests, the following test may be done to rule out the cause for urinary incontinence.

1. Bladder ultrasound scans:

An ultra sound scan uses high-frequency sound waves to create an image of the inside of the body. An ultrasound scan of the bladder can show how much urine is left in the bladder after going to the toilet.

Webmed., (2012)

2. Cystoscopy:

A cystoscopy involves using a flexible viewing tube, known as an endoscope, to look inside the bladder and urinary system. This test can identify abnormalities that may be causing incontinence.

3. Urodynamic testing:

Urodynamic tests are a group of tests used to check the function of the bladder and urethra. This may include keeping a bladder diary for a few days and then attending an appointment at a hospital or clinic for some tests.
These could include:

- measuring the pressure in bladder by inserting a catheter into urethra
- measuring the pressure in abdomen by inserting a catheter into rectum
- asking to urinate into a special machine that measures the amount and flow of the urine

Web med., (2012)

PHARMACOLOGICAL MANAGEMENT FOR URINARY INCONTINENCE

Drugs used in the treatment of over active bladder symptoms:

- Antimuscarinic /Anticholinergic drugs: Atropine 16mg [rarely used], Propantheline-15-30 mg,daily,Q4H,Trospium-20mg BD for 3 weeks, Toltirodine-2 to 4mg – OD,Darifenacin-5mg TID, Solifenacin -10mg BD.
- Drugs acting on membrane channels: Calcium Agonist: Nimodipine-30mg-BD-PO can be given.
- Drugs with mixed action: Oxybutynin-5mg –BD, Propiverine-15mg-TID, Flavoxate-1200mg/day can be given.
- Alpha adrenoceptor antagonist: Tamsulosin-0.4 mg-OD.
- Beta adrenoceptor agonist: Clenbuterol-0.01 mg 3 times daily.
- Prostaglandin synthesis inhibitor: Flurbiproven – 50mg TID

- Vasopressin analogue: Desmopressin-20 mcg-OD

Anderson., (2012)

Drugs used for the treatment of stress urinary incontinence:

- Imipramine-75 mg daily; clenbuterol-10mg BD; Duloxetine-80mg OD can be given.

Drugs used for the treatment of overflow incontinence:

- Prazocin-1mg can be given.

Hormonal treatment for urinary incontinence:

- Estrogen-0.625mg for 3 months**;** Medroxy progesterone-10 mg for 3 months can be given**.**

Anderson., (2012)

NON PHARMACOLOGICAL MANAGEMENT OF URINARY INCONTINENCE

Natural treatment for overactive bladder:

Bladder training and pelvic floor exercises are just two natural treatments for overactive bladder. Research suggests that these non-drug remedies can be very effective for many women, and they have almost no side effects.

Bladder training: This is the most common over active bladder (OAB) treatment that doesn't involve medication. Bladder training helps changing the way to use the bathroom. Instead of going whenever feel the urge, urinate at set times of the day, called scheduled voiding. It can be learn to control the urge to go by waiting for a few minutes at first, then gradually increasing to an hour or more between bathroom visits.

Medline., (2011)

2. Pelvic floor exercises: Just as exercise to strengthen the arms, abdomen, and other parts of the body, exercises to strengthen the bladder muscles that control urination also can be used. This exercise is called Pelvic floor exercise. During these pelvic floor exercises [Kegels] can be used to tighten, hold, and then

relax the muscles that use to start and stop the flow of urination.

3. Bio feedback: Using a special form of training called biofeedback can help to locate the right muscles to squeeze. Start with just a few Kegel exercises at a time, and gradually work way up to three sets of 10.

Medline., (2011)

4. Electric stimulation: Another method for strengthening pelvic floor muscles is with electrical stimulation, which sends a small electrical pulse to the area via electrodes placed in the vagina or rectum. Until getting overactive bladder under control, wearing absorbent pads can help hide any leakage that occurs.

5. Behavioral tips: Other behavioral tips for preventing incontinence include:

1. Avoiding drinking caffeine or a lot of fluids before activities
2. Not drinking fluids right before going to bed

Medline., (2011)

SURGICAL MANAGEMENT

1. Periurethral Injections: One of the surgical treatments for this condition, used in both males and females, is urethral injections of bulking agents to improve the coaptation of the urethral mucosa. The injections are done under local anesthesia with the use of a cystoscope and a small needle. Bulking material is injected into the urethral sub mucosal layer under direct vision. Unfortunately, the cure rate with this treatment is only 10 to 30 percent despite multiple formulations on the market for use. This treatment can be repeated and sometimes acceptable results are seen after multiple injections. The operation is minimally invasive but the cure rates are lower compared to the other surgical procedures.

Urology Care Foundation., (2011)

2. Sub urethral Sling Procedures: The most common and most popular

surgery for stress incontinence is the sling procedure. Today, most of these procedures are being called by the names (TVT) Tension free vaginal tape sling or (TOT) Trans obturator tape sling. In this operation a narrow strip of material is used either from: cadaveric tissue (from a cadaver), autologous tissue (from own body), or soft mesh (synthetic material). It is applied under the urethra to provide a hammock of support and to improve urethral closure. The operation is minimally invasive and patients recover quickly. For many years it was thought that biologic materials, the patient's own fascia or cadaveric fascia, would create better more sustainable outcomes.

Urology care foundation., (2011)

3. Retro pubic Colposuspension: Another option is abdominal surgery in which the vaginal tissues or periurethral tissues are affixed to the pubic bone. The long-term results are good but the surgery requires longer recuperation time and is only used when other abdominal surgeries are also required. This procedure can also be performed laparoscopically however long term results are not as good as with the open procedure.

4. Bladder Neck Needle Suspension: A long needle is used in these procedures to thread suture from the vagina to the abdominal wall. The suture incorporates peri urethral tissue at the level of the bladder neck. These procedures were found to be less effective than open retro pubic suspensions and slings and as a result are rarely done today.

Urology care foundation., (2011)

5. Anterior Vaginal Repair: Sutures are placed in the periurethral tissue and fascia in order to elevate and support the bladder neck. This procedure has also fallen out of favour for inferior long term outcomes compared to open retro pubic suspensions and slings. The potential adverse outcomes of surgical treatment include bleeding, infection, pain, urinary retention or voiding difficulties, urgency, pelvic organ prolapse and failure of the surgery to fix the leakage. With the use of mesh materials there is a very small risk of erosion of

the material into the bladder, urethra or vagina.

6. Bladder Augmentation: In more difficult cases, the bladder can be made bigger using a segment of small intestine. This operation, called augmentation cystoplasty, is very successful in curing incontinence but its main drawback is the need in 10 to 30 percent of the patients to perform self-catheterization to empty their bladder. It is extremely effective in curing bladder urgency and urge incontinence.

Urology care foundation., (2011)

PREVENTION

Prevention of urinary incontinence includes:

- Drinking plenty of fluids
- Eating a high-fibre diet
- Being physically active
- Practicing good toilet habits
- Making healthy lifestyle choices.

Medscape., (2013)

Drinking fluids helps to prevent incontinence

Dehydration can cause constipation or bladder irritation. To prevent dehydration:

- It is best to drink water when thirsty.
- Drink up to two litres (6 to 8 glasses) of fluid each day, unless restricted.
- May need to drink more fluids in hot weather or after heavy exercise.
- Spread drinks evenly throughout the day.
- Fluids like fruit juice, milk or soup can be included but limit daily intake of carbonated drinks, alcohol, tea and coffee because they can cause bladder irritation.
- Check to see whether drinking enough fluid by looking at the colour of the urine. If well hydrated, urine should be pale yellow. Urine that is dark yellow in colour means has not had enough fluid.

Eating a high-fibre diet helps to prevent incontinence

It is important to eat well to keep bowels healthy and regular. Diet should contain food that is high in fibre. Dietary fibre is not digested, so it adds bulk to the stools, which is important to keep moving and to avoid constipation. A poor diet can cause chronic constipation, which can lead to fecal incontinence.

Suggestions for adding more fibre in diet include:

- Eat plenty of wholegrain cereals (such as porridge), whole meal bread or high-fibre white bread.
- Eat fruit (at least two pieces) and vegetables (at least five serves) every day.
- Aim for 30 g to 60 g of fibre every day. As a rough guide, a bowl of muesli [a mixture of cereals especially rolled oats, dried fruit and nuts typically eaten with milk at breakfast contains about 8 g of fibre and an apple (with skin) has just over 3 g.
- Drink up to two litres of fluid per day (dietary fibre needs water in order to plump up the stool).

Medscape., (2013)

Regular physical activity helps to prevent incontinence

Physical activity helps to prevent constipation by stimulating muscular activity of the bowel (peristalsis). Exercise also tones the pelvic floor, which is the sling of muscle directly responsible for bladder and bowel control.

Suggestions for physical activity include:

- Have a brisk 30-minute walk every day
- Stick to a regular exercise
- Keep doing pelvic floor muscle strengthening exercises.

Good toilet habits help to prevent incontinence

Good toilet habits can help to prevent bladder and bowel problems. Suggestions include:

- Go to the toilet to urinate only when bladder is full.
- Take time on the toilet. Allow urine to flow at its own speed (don't use pelvic floor to push out urine).
- Go to the toilet when feel the urge to pass a bowel motion. Hanging on can lead to constipation.
- Give plenty of time to pass a bowel motion.
- Don't strain to open bowels. Regular straining can cause problems including hemorrhoids (swollen veins in the anus), and can weaken pelvic floor muscles.
- Use correct posture on the toilet (it can help to pass a bowel motion). Place elbows on knees and put feet on a footstool.
- Use laxatives as a short-term solution and work on treating constipation with diet, exercise and lifestyle changes.

Medscape., (2013)

A healthy lifestyle helps to prevent incontinence

Healthy food choices, exercising and managing weight are important to prevent incontinence. Suggestions for a healthy lifestyle include,

- Maintain a healthy weight – excess body fat strains the muscles of the pelvic floor. Loose weight slowly and sensibly.

Medscape., (2013)

PROGNOSIS

Most women who seek treatment for urinary incontinence find that their symptoms are improved. Bladder retraining can lead to good results after only a few weeks. Kegel exercises improve urine control in many women who use them consistently.

Surgery for urinary incontinence can be very successful. But it can result

in one or more complications. These include:

- Difficulty in emptying the bladder
- Bladder spasms
- Bladder infection
- Injury to the bladder during surgery
- Return of incontinence

American urological Association., (2014)

b) OVERVIEW OF URO GENITAL DISTRESS

INTRODUCTION

Symptoms of uro genital dysfunction are common in the female population. In the last two decades, there is an increasing awareness that the consequence of these symptoms for general well-being is not only determined by the type and severity of the symptom but also by the individual's psychosocial adjustment to it. This is especially true for chronic disorders like urinary incontinence or genital prolapse that are often not characterized by severe physical abnormalities nor have impact on mortality. Although these symptoms are not life-threatening, women affected often report limitations in their physical, social and emotional functioning.

DEFINITION

Uro genital distress refers to the embarrassment of urinary incontinence result in loss of self esteem and decreased ability to maintain an independent life style.

BLACK.M.JOYCE., (2005)

CAUSES

1. Frequent urination
2. Urine leakage associated with a feeling of urgency, urine leakage related to coughing, sneezing, or laughing
3. Difficulty in emptying bladder
4. Experiencing pain or discomfort in the lower abdomen or genital region

Gary., (1999)

CLINICAL MANIFESTATIONS

1. Mixed incontinence
2. Stress incontinence
3. Urge incontinence
4. Urgency/Frequency
5. Symptomatic prolapse

Gary., (1999)

DIAGNOSTIC STUDIES

1. History
2. Urinalysis
3. Physical examination
4. Demonstration of stress incontinence
5. Assessment of urethral mobility
6. Measurement of post void residual urine volume.

American Uro gynecologic Society., (2014)

TREATMENT

CONSERVATIVE MANAGEMENT

1. Pelvic muscle exercises (with or without physical therapy)
2. Behavioral modification
3. Continence- support pessaries
4. Urethral inserts

SURGICAL MANAGEMENT

Anti –incontinence procedures such as,

→ Retro pubic urethropexies
→ autologous fascial slings
→ urethral bulking agents
→ synthetic midurethral slings

American Uro gynecologic Society., (2014)

C) OVERVIEW OF BLADDER RETRAINING PROGRAMME

INTRODUCTION

Bladder retraining is a program to change the way to urinate that can help to decrease the problems of urgency, frequency, and incontinence. One study showed that bladder retraining resulted in 75% of patients seeing an improvement in their symptoms, with 12% being completely cured. These are very encouraging results as bladder retraining does not require people to take any medicines or undergo any surgeries.

Virginia urology., (2009)

BLADDER RETRAINING

DEFINITION

Bladder retraining is defined as re-educating the brain to control the bladder muscle again. It can take weeks to control urgency (rushing to the toilet).

Brunner., (2010)

PURPOSES

The purpose of bladder retraining is to increase the amount of urine that the bladder can hold. It can hold at most about two 8-ounce cups of urine. Bladder retraining works to help to urinate less often, about every 3 to 4 hours. With retraining, may even notice some improvement in a few weeks.

Simon foundation for incontinence., (2014)

INDICATIONS

1. Stress incontinence
2. Urge incontinence
3. Overflow incontinence
4. Functional incontinence
5. Weakness in pelvic floor muscles

Government of Western Australia., (2008)

CONTRAINDICATION

1. Urinary retention
2. Lack of consent
3. Post operative not before 6 weeks
4. Severe Vaginitis or Atrophy
5. Sexual Abuse
6. Pelvic pain
7. Pudental neuralgia.

Kathleen., (2012)

BLADDER RETRAINING PROGRAMME (BRP):

The type of bladder retraining depends on the personal bladder chart but the two most common programmes are listed below.

Programme One: When need to pass urine, wait and count to ten and then go. When mastered this, increase the count to 20, 30, and 40 and so on. Eventually will be able to wait 15-30 minutes before passing urine.

Programme Two: Dependant on bladder chart will be given a series of times to go and pass urine. For example, every two hours even if have no desire to go. Try to hang on in between. The following activities may help: count or recite a poem, doing a pelvic floor exercise.

Bedford Hospitals., (2012)

EFFECTS OF BLADDER RETRAINING PROGRAMME

1. It promotes behavioural changes.
2. Helps in changing voiding habits.
3. Makes changes in fluid intake.
4. Helps in improving compliance by contracting the correct pelvic muscles.

Urge Suppression Techniques (Ways to Reduce the Urge)

Pelvic muscle (Kegel's) exercises can be practiced by contracting or tightening the pelvic floor muscles and hold for 10 seconds and relax. Repeat several

times.

Different kinds of Kegel's exercises:

Elevators: Elevator Kegel Exercise

The elevator Kegel exercise is a process that helps to strengthen the muscles higher up in the urogenital area. The initial hold is at the opening to the vagina. Without relaxing, tighten the muscles further, focusing on tightening the muscles higher up the urethra. Finally, without relaxing, try to tighten the muscles even higher up towards the bladder neck and hold for five seconds. Ideally, it would be great if can hold at each level.

4. Focus on the muscles of the vaginal/urethral opening and hold for a count of three seconds.
5. Without relaxing, those muscles try to tighten a little bit higher past the opening and hold for a count of three seconds.
6. Without relaxing, continue to tighten even higher as if trying to tighten the muscles of the bladder neck and hold for a count of three seconds. Once successfully completed this three-tier process for three seconds at each level, and then gradually increase to a hold and count for five seconds.

Quickies: Squeeze and release pelvic muscles as fast as five times in a row. Relax 10 seconds, and then repeat.

Long Haul: Pull pelvic floor muscles as tight as for as long as possible. When feels that the muscle is weaken then relax.

Mental activity can also be used to draw attention away from the urge to urinate. It can be used alone or along with the pelvic muscle exercises. For example, try counting backwards from one hundred, doing deep breathing exercises, reciting a long forgotten poem, or watching a television programme to distract from the urge to void.

Virginia urology., (2009)

KEGEL EXERCISE

Alternate Names

Pelvic muscle strengthening exercises, pelvic floor exercises

Definition

Kegel exercises are a series of pelvic muscle exercises designed to strengthen the muscles of the pelvic floor.

Dr. Arnold Kegel developed Kegel exercises in 1948 as a method of controlling incontinence in women after childbirth. These exercises are now recommended for:

- Women with stress urinary incontinence
- Some men who have urinary incontinence after prostate surgery
- People who have fecal incontinence

Kegel exercises strengthen the muscles of the pelvic floor to improve urethral and rectal sphincter function. The success of Kegel exercises depends on proper technique and sticking to a regular exercise program.

PERFORMING PELVIC FLOOR EXERCISES

1. Begin by emptying the bladder.
2. Tighten the pelvic floor muscles and hold for a count of 10.
3. Relax the muscle completely for a count of 10.
4. Do 10 exercises, 3 times a day (morning, afternoon, and night).

These exercises can be done at any time and at any place. Most people prefer to do these exercises while lying down or sitting in a chair. After 4 - 6 weeks, most people notice some improvement. It may take as long as 3 months to see a major change.

CAUTION: Some people feel that they can speed up the progress by increasing the number of repetitions and the frequency of exercises. However, over exercising can cause muscle fatigue and increase urine leakage. When done in the right way, Kegel exercises have been shown to be very effective in improving urinary continence.

Rogers., (2008)

STEPS IN KEGELS EXERCISE

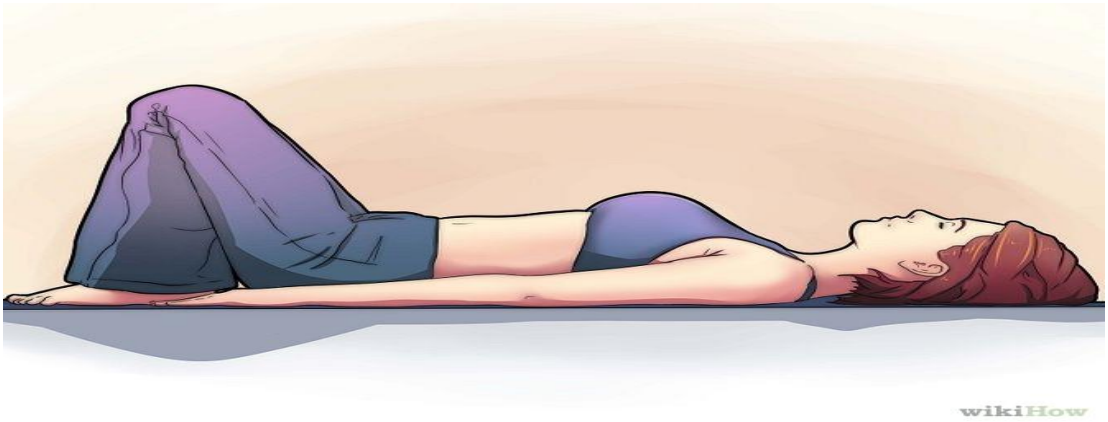
1. FIND PELVIC FLOOR MUSCLE:

While urinating, try to stop the flow. This tightening is the basic move of a kegel. However, don't use this as regular kegel exercise routine. Doing kegels while urinating can actually have the opposite effect, weakening the muscle.

2. TIGHTEN AND RELAX THESE MUSCLES DAILY:

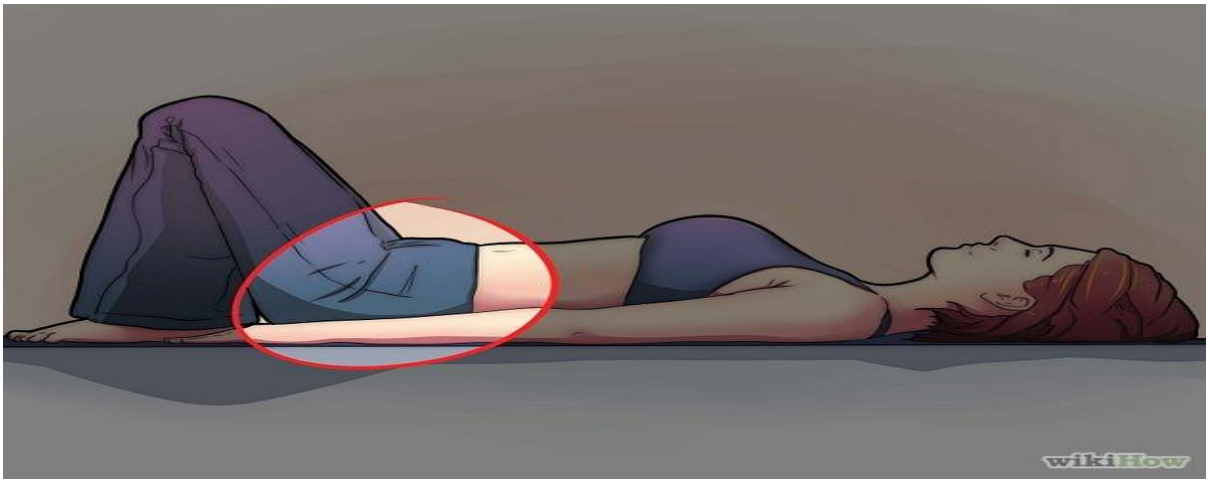
Try and work up to 100-200 times a day.

3. GET INTO A COMFORTABLE POSITION:



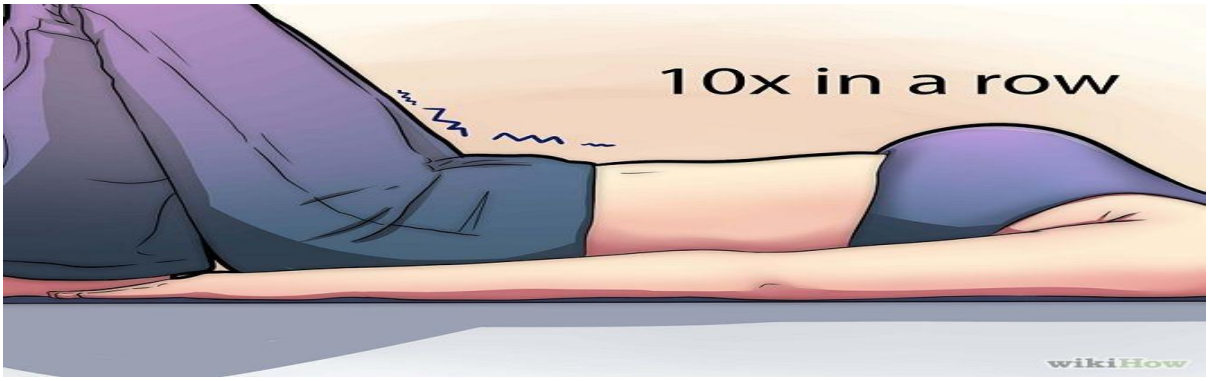
This exercise can be done either sitting in a chair or lying on the floor. Make sure that buttock and dummy muscles are relaxed.

4. CONCENTRATE ONLY ON THE PELVIC FLOOR MUSCLES AND TRY NOT TO TIGHTEN ANY OTHER AREA OF THE BODY:

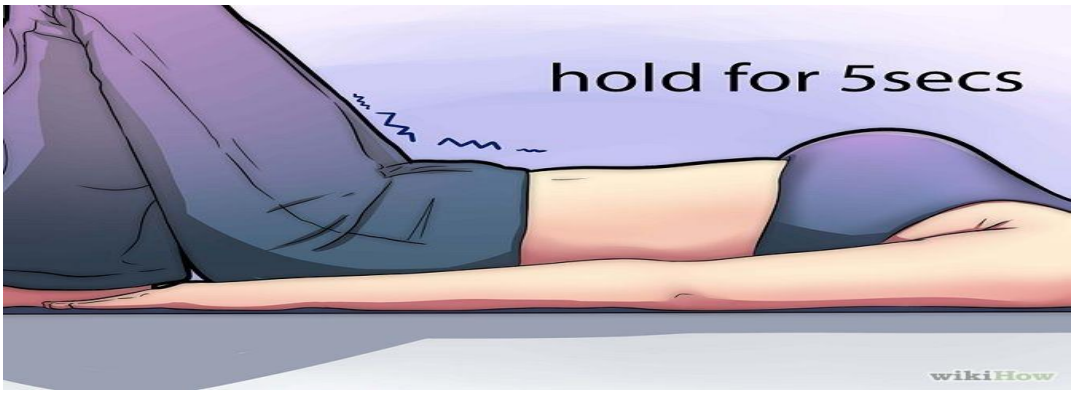


Breathe normally during the exercise.

5.TO DO A QUICK KEGEL, QUICKLY SQUEEZE THE PELVIC FLOOR MUSCLES AND RELEASE 10 TIMES IN A ROW



6.TO DO A SLOW KEGEL,SQUEEZE THE PELVIC FLOOR MUSCLES FOR 5 SECONDS AND RELEASE.



Do this 10 times. It should take about 50 seconds to complete a slow kegel

7. TO PERFORM A PULL-IN KEGEL, THINK THAT PELVIC FLOOR MUSCLES AS A VACCUM: Tense buttocks and pull legs up and in. Hold this position for 5 seconds and then release it. Do this 10 times in a row. It must take about 50 seconds to complete.

8. IMAGINE AND TRY TO HOLD BACK THE URINE, LIFT AND SQUEEZE FROM INSIDE.

Try and hold that action for the count of three. Imagine as trying to stop

from passing wind; lift and squeeze the anus and hold for a count of three. Combine those two movements into one fluid movement. Starting from the front, lift and squeeze, don't let go, follow through to anus, lift and squeeze. Relax. Hold this position for 10 seconds. Rest for 10 - 20 seconds and repeat. Work towards 12 strong holds and as it starts to become easier, try holding for longer, and repeat as many times as possible.

9. PERFOM KEGEL EXERCISE REGULARLY 3 TO 4 TIMES A DAY

Andrea., (2013)

BENEFITS OF KEGEL EXERCISE

Urinary Incontinence

If kegel exercises are done regularly, it helps in reducing urinary incontinence by obtaining good bladder control. It saves money from getting adult diapers.

Uterine/Vaginal/Rectal Prolapse:

The Pubo Coccygeal muscles are like a hammock or sling holding the pelvic organs in place. When the pelvic floor muscles are too weak, the vagina and uterus can shift or completely prolapse. A benefit of Kegel exercises is that

they strengthen "hammock." Lack of muscle tone and strength in pelvic floor muscles can lead to complete muscle atrophy. This is usually found in post-menopausal women and may be due to childbirth or lack of sexual activity. Severe cases of uterine and vaginal prolapse cause the organs to fall out of the body. The bladder can also prolapse due to weak Pubo Coccygeal muscles. Obesity can cause rectal prolapse in both older men and women. Kegel exercises helps to strengthen the pelvic floor muscles and preventing the prolapse.

e) OVERVIEW OF QUALITY OF LIFE

INTRODUCTION

The best way of approaching quality of life measurement is to measure the extent to which people's 'happiness requirements' are met-i.e. those requirements which are a necessary (although not sufficient) condition of anyone's happiness- those 'without which no member of the human race can be happy.

Mc Call., (1998)

DEFINITION

The degree of satisfaction an individual has regarding a particular style of life.

World Health Organization., (2006)

COMPONENTS

1. Health related quality of life
2. Material quality of life
3. Mental quality of life
4. Quality of working life
5. Family quality of life
6. Quality of social life
7. Leisure quality of life
8. Environment related quality of life

Dalia., (2007)

IMPORTANCE OF QUALITY OF LIFE

1. Promoting quality of life
2. Healthy development
3. Health behaviors across all life stages

Alberta., (2008)

EFFECTS OF QUALITY OF LIFE

1. Biological variables like Age, Sex.
2. Physiological variables like temperature, pulse, respiration, blood pressure.
3. Symptom status like stress, emotions, fatigue, distress.
4. Functional status like health, nourishment, stamina.
5. General Health perceptions about self and relationships.

Federal Government., (2014)

WAYS TO IMPROVE QUALITY OF LIFE:

Pneumonics such as **'PERMAH'** can be used to improve the quality of life.

- **P: Positive emotions:** The moments and extended periods we have of different positive moods, including feelings of happiness, gratitude, closeness, confidence, peacefulness, and awe-inspired.

- **E: Engagement:** Periods of time when we are so engaged with the activity we're working on that we have clarity of focus, time seems less relevant, and we are challenged at a level to which we're attracted. This is frequently associated with 'Eustress', which is the positive opposite to distress.

- **R: Relationships:** The quality of our relationships with others is very highly correlated with our overall quality of life. The strength of our social support structure or 'Personal Safety Net' is fundamental to our coping skills and resiliency when facing challenges in our lives. Our relationships are also a primary source of many of the other aspects of quality of life, especially positive emotions.

- **M: Meaning:** How well our work and other endeavours connect with a "greater purpose" contributes enormously to our self esteem and confidence to continue our efforts. The opposite is a feeling that we are wasting our time on trivial tasks that do not contribute to a greater cause. A sense of meaning is often easier to come by if what we do connects with addressing the needs of a community we care about.

- **A: Accomplishment:** A sense of accomplishment is closely tied to how well we feel we are able to complete our "to do" lists. But it can also include the simple positive emotion that comes from completing an already-solved problem like a Sudoku puzzle, or level of a video game.

- **H: Health:** Not referenced in the original list, but worth including here, is the quality of our physical well-being, including how much pain we're in, how much mobility we have, and how much we can do physically. According to Gallup's research on global well being, the quality of our sleep plays a critical role in overall quality of life - if we aren't getting enough good rest, we are far more likely to be emotionally overwhelmed or otherwise less productive.

Espanol., (2011)

5
4
3
2
1

PART- II

SECTION A: STUDIES RELATED TO INCIDENCE AND PREVALENCE OF URINARY INCONTINENCE AMONG WOMEN

Jwanadilova., (2005) A descriptive study was done in USA to assess the prevalence of urinary incontinence among women admitted between January 2002 and December 2003 with a mean of 78 years were selected. Quantitative retrospective documentary analysis was done by using nursing progress notes and related care plans which revealed 30% of them had some level of incontinence, 58% of them had both fecal and urinary incontinence, 8.7% had severe incontinence. The results showed that urinary incontinence and fecal incontinence are prevalent. Drug treatment as a management modality was used in minority. Bladder training, scheduled toileting and use of incontinence pads were used to manage incontinence.

Jennifer.et.al., (2006) A population based survey was conducted to measure the prevalence of urinary incontinence among community dwelling adult women in Los Angeles. Questionnaires were used to collect data. The overall prevalence of daily incontinence increased with age, ranging from 12.2% in women 60 to 64 years old to 20.9% in women 85 years old or older. Of women reporting any incontinence, 13.7% reported daily incontinence, and an additional 10.3% reported weekly incontinence. Prevalence was higher in non – Hispanic white women (41%) than in non- Hispanic black(20%) or Mexican-American women (36%).Women with less than a high school education were less likely to report incontinence than were those with at least a high school education. Prevalence of UI is high and varies with age, race, ethnicity and

socioeconomic variables.

Agrawal.et.al., (2007) A prospective study was conducted in Raipur to determine the incidence and epidemiological factors of urinary incontinence among women attending the outpatient department from March 2003 to December 2005. All the married women above the age of 20 years were selected. 30 questions related to urinary incontinence were administered. On the basis of the questionnaire, 528 of the 800 women (66%) were found continent and 272 (34%) were incontinent. After examination and investigation of the 272 incontinent women, highest percentage was found to have stress incontinence. (72.1%) 196/272 had mixed incontinence. The incontinent women participated were between the age group of 19-75 years.26.4 % were post menopausal and 43.01 had a parity of 4 and above.

Bailey.et.al., (2007) The study was conducted to determine the prevalence of urinary incontinence and its effects on the quality of life of women working at the Universitas Academic Hospital in Bloemfontein (South Africa).200 women were selected by means of simple random sampling. The mean age of the participants were 44.4 years (range-24 to 62 years).75% of the affected women related their symptoms as light to moderate, with total scores <10/21.On the quality of life questionnaire, the affected participants ranked the aspects of life listed in the questionnaire on a scale of not at all to great deal which ranges from the score of 0-10.The findings confirmed that the quality of life of women was affected by urinary incontinence which was diminished with emphasis on concerns about hygiene, social and interpersonal relationships and self esteem.

Lauren.P.Wallner.et.al., (2009) A survey was conducted in North west to know the prevalence and severity of undiagnosed urinary incontinence in women. Mailed questionnaire were used to collect the data.875 women between the age group of 25-80 years completed the survey. The prevalence of undiagnosed urinary incontinence was 53% in the preceding year and 39% in

the preceding week. The prevalence of undiagnosed stress, mixed and urge incontinence was found to be 18.7%, 12.0% and 6.8% respectively. Quality of life was found to significantly decrease with increasing urinary incontinence severity. Of the 234 chart reviewed women, 5% were found to have physician documented urinary incontinence. These results suggest that a significant proportion of women in managed care population are suffering from urinary incontinence that remains undiagnosed. Efforts should be made to encourage women and health care workers to initiate conversations about urinary symptoms in order to decrease the unnecessary burden of the disease.

Bain.et.al., (2009) The study was conducted to determine the prevalence of urinary incontinence in united states. Data relating to the reported prevalence of incontinence symptoms are presented by gender and age group. Amongst the total sample, 23% reported suffering or having suffered from UI. There was a considerable difference in prevalence amongst males and females, with 13% of men and 32% of women reporting UI. There is a general trend for the prevalence of UI to increase with age, with an indication of slight peak in the 45-54 years age range. In the sample, 23% reported UI. This implies that even that amongst those affected an enormous proportion is unaware of how common incontinence is. Such poor awareness may serve to foster feelings of isolation amongst those affected and to increase the detrimental impact on quality of life and help seeking.

George.etal., (2009) The study was conducted in Chicago to determine the prevalence of urinary incontinence in the elderly. The prevalence of urinary incontinence [UI] increases with age. Moderate to severe UI affects 7% of women -20 to 39 years of age, 17% -40 to 59 years of age, 23% -60 to 79 years of age and 32%≥ 80 years of age. The prevalence in men is approximately one third that of women, until it equalizes in the ninth decade. Nursing home residents have especially high rates of UI, ranging from 60 to 78% in women and 45 to72% men. The primary impact of UI is on quality of life, including

self concept, self esteem and the burden of coping. Economic costs of UI continue to rise, adding an estimated $6 billion annually to the cost of caring for older Americans.

Hijaz., (2009) The study was conducted to assess the urinary incontinence risk and to review recent epidemiology in Pakistan. The prevalence of urinary incontinence in community-dwelling women ranges from 10% to 40%; wider ranges can be found in elderly women. In studies that differentiate any urinary incontinence from severe or daily disease, the prevalence was 29% (range 11%–72%) and 7% (3%–17%), respectively. About a quarter of urinary incontinence is regarded as severe. Prevalence has always been higher in institutionalized subjects. Several recent studies from around the world suggest a prevalence of ≥ 50%. Approximately half of all incontinent women are classified as stress incontinent, making this group the largest among urge, mixed, and stress types.

Sherina.Mohd.et.al., (2010) A cross sectional study was done in Malaysia to determine the prevalence of urinary incontinence and its associated factors among the elderly in the community setting. Stratified cluster sampling technique was used. All elderly residents aged 60 years old and above were included as respondents. The translated Malay version of the Barthel's Index was used to identify the presence of urinary incontinence. The findings revealed that the prevalence of urinary incontinence was 9.9% among the elderly respondent. Urinary incontinence among the elderly was significantly associated with age, gender, depression, functional dependence and diabetes mellitus ($P<0.05$).

Ronald.et.al., (2013) A Survey was conducted to assess the quality of life of individuals with urinary incontinence who visit a self- help website in united states. Self reported quality of life data was used to gather the data through the

website. Those with urinary incontinence have reported a decrease in general quality of life symptoms of depression, anxiety, low self-esteem, poor body image and social stigmatization. 374 individuals with urinary incontinence who responded for enrolment in a ‘‘Continence Comprehensive Health survey and Life Assessment’’ survey posted on the Simon foundation for continence website were selected as a sample. The results revealed that 13.01% of the respondents had not spoken to a health care provider about their urinary incontinence symptoms, 24.73% had never seen a healthcare professional who ‘‘specializes in bladder problems,’’ and 75% said they were not currently using any active approach to manage the symptoms.

Seshan.et.al., (2013) The study was conducted to determine the prevalence of urinary incontinence and its symptom among women in a selected district in India. A cross sectional design was used to collect data from a sample of 598 community dwelling women between the age group 20-60 years. The prevalence of UI was 33.8% and the majority of women had negative attitudes about the condition. For instance most women were in agreement with statements such as: UI cannot be prevented or cured (98%); women with UI are cursed (97%); women are not supposed to tell anyone about the problem (90%) and others. Of the 202 women with self-reported UI, the majority reported having moderate urinary incontinence severity score (UISS) (78%) and others rated the symptoms as mild (22%). Many community dwelling women are suffering from UI at proportions which warrant significant public health consideration.

Fred Kirss.et.al., (2013) A long term preventive trial was done to estimate the prevalence of urinary incontinence (UI) and to assess its risk factors among post menopausal women in Estonia. Self administered questionnaires were used to gather data. Mean age of study women was 53.3years (min=48, max=67; SD=4.0). The prevalence of urinary incontinence was 18.12 %(95% confidence interval (CI):16.07-20.17).Stress incontinence was diagnosed in

78.83 %(95% confidence interval (CI):73.32-84.33) and urge or mixed incontinence in 21.17 %(95% confidence interval (CI):15.67-26.68) of women who reported incontinence. Prevalence of urinary incontinence slightly increased with age. Women who used hormone therapy (HT) (odd's ratio(OR)=16.7;95%, confidence interval(CI):1.17-2.39) had hysterectomy (1.73,95% confidence interval (CI):1.06-2.83) and those with secondary education (odd's ratio(OR) 1.87,95% confidence interval (CI)1.23-2.82) or basic education(odd's ratio(OR) 3.29,95%, confidence interval(CI):1.80-6.02) had a higher risk for UI. Parity, having a (Body mass index) BMI over 30 kg/m^2, having diabetes tended to increase the risk of urinary incontinence.

Danforth.et.al., (2013) A prospective cohort study was conducted in Pittsburgh to assess the prevalence of urinary incontinence and fecal incontinence, a survey of over 64,000 women ages 62 to 87 years found a prevalence of urinary incontinence alone of 38 percent, of dual urinary and fecal incontinence of 7 percent, and of fecal incontinence alone of 4 percent. Risk factors for dual incontinence included: age >80 years compared with age < 70; depression; neurologic disease; functional limitations, multiparity; and childbirth of a heavy neonate (>9.5 pound). Black race was associated with a decreased risk of dual incontinence. The prevalence of urinary incontinence in women, using the inclusive definition of any leakage at least once in the past year, ranges from 25 to 51 percent .Weekly urine leakage was reported in 10 percent of women in an ethnically diverse urban population .The prevalence of incontinence increases with age.

Yelana.et.al., (2014) The study was conducted to assess the prevalence of incontinence among older Americans. Response rates for incontinence questions were 84% among non institutionalized person, 98 % among residents and home health and hospice care patients and 99% for nursing home residents, home health and hospice care patients and 99% for nursing home residents more than one half of non institutionalized women aged 65 and over reported a

urine leakage. About 12% had severe or very severe bladder incontinence. Observed differences in urine leakage rates among non institutionalized persons by age group, poverty level, level of education or material status were not statistically significant.

Sheng-shong.et.al., (2014) A study was conducted in shanghai(china) to evaluate the prevalence of urinary incontinence among Chinese women and its associated risk factors.5467 registered residents aged from 20 years and more were randomly selected. The Bristol female Lower urinary tract symptoms questionnaire was used. The prevalence rate of urinary incontinence was estimated to be 23.3%.The rate of stress urinary incontinence (SUI)was 14%(761/5433),which was more prevalent than the rate of urgency urinary incontinence(UUI)and mixed urinary incontinence (MUI), which were 3.0% (164/5433) and 6.3%(341/5433) respectively. The risk factors associated with developing urinary incontinence included aging, lack of education, poor living environment (specifically in the rural area).It was also observed that most Chinese women were not aware of urinary incontinence (UI),which prevented them from seeking early treatment.

SECTION B: STUDIES RELATED TO EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF UROGENITAL DISTRESS AND IMPROVING QUALITTY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE:

Hyun.et.al., (2005) A non equivalent control group pre test post test design was used to determine the effectiveness of a behavioral intervention program for urinary incontinence in Korea. In a community setting, 60 middle aged women were taken; 30 in control and 30 in experimental group. Voiding diaries were used to assess the symptom related urinary incontinence, urine leakage was assessed by Lee's Korean leakage index scale, quality of life was assessed by using Kim and lee's 12 item quality of life scale and depression was assessed by Geriatric Depression scale. Bladder training such as pelvic floor muscle exercise and urinary incontinence education were given. The descriptive and inferential statistics were used. After 5 weeks of intervention, the leakage index was 4.50 (SD$\pm$ 5.49); Quality of life was 3.450 (SD $\pm$ 1.85) and depression was 2.97(SD $\pm$2.97) which was significantly lower than the mean scores of control group at P$\leq$ 0.01.The programme was overall effective in terms of relieving symptoms and improving psycho social well being related to urinary incontinence among middle aged women.

Balmforth.et.al., (2006) A prospective observational trial was done in Rockville Pike, USA to assess the impact of Pelvic floor muscle training (PFMT) on bladder neck mobility among women with stress urinary incontinence. Bladder neck mobility was assessed by using perineal ultrasonography; A group of 97 women were participated. Rehabilitation programme was given for a period of 14 weeks. Treatment outcome was assessed using a standardized pad test and a condition – specific , validated

quality of life questionnaire (King's Health Questionnaire).Treatment with an intensive package of Pelvic floor muscle training (PFMT) and behavioral modification resulted in significant elevation of the bladder neck position at all three measured positions. Displacement of the bladder neck on valsalva (rotational excursion) was reduced after treatment, suggesting increased levator 'stiffness'. These changes in functional anatomy were associated with a statistically and clinically significant reduction in urine loss and improvement in condition-specific quality of life.

Mary.P.Galea., (2006) A study was conducted in Melbourne to determine pelvic floor muscle training for incontinence in older women with 70 years and more. Bladder retraining programme and pelvic floor muscle training given; quantity of urine loss was measured by self report, urine lost on stress was measured by pad weigh test, quality of life was measured by using king's health questionnaire, degree of bother was measured by using (visual analogue scale) VAS; 1 month, 3 month and 5 month interval assessed, till 7 month final assessment done. It has been suggested that bladder training alone is equally effective in patients with stress urinary incontinence, urge and mixed urinary incontinence.

Ontario.et.al., (2008) A systemic review and randomized control trial was done by Medical Advisory Secretariat in Canada to assess the effectiveness of behavioral interventions for the treatment and management of urinary incontinence among Canadian population. A comprehensive search strategy was used to gather the information. Multicomponent interventions such as bladder training, Pelvic floor muscle training (PFMT) with or without biofeedback bladder control strategies education and self monitoring revealed significant reduction in the mean number of incontinent episodes per week [n=5 studies,95%confidence interval (CI),2.07-5.19] significant improvement in patient's perception of urinary incontinence [n=3 studies,95% confidence interval(CI)] suggested beneficial impact on patient health related quality of

life. Prevalence estimates range from 9% to 30% for senior men and nearly double from 19% to 55% for senior women.

Karen.Mgil.et.al., (2009) The study was conducted in USA to determine the distress and quality of life characteristics associated with seeking surgical treatment for stress urinary incontinence. The research focuses on the three variables in evaluating the impact of stress urinary incontinence on daily living; severity of incontinence, distress or bother resulting from incontinence and effect on health related quality of life (HRQOL).Of 178 articles retrived, 21 met the inclusion criteria and 17 reported the method of scoring. Several studies examined the relationship between the severity of incontinene and measures of distress or bother. The studies revealed that there was a positive relationship between the number of reported leaks per day and UDI and IIQ scores (UDI, r=0.23; IIQ,r=0.34).

Jose Mary.et.al., (2010) The study was conducted to determine the efficacy of a comprehensive pelvic floor muscle rehabilitation program of stress urinary incontinence among women in Mumbai. This study included a total of 20 subjects with stress urinary incontinence within the age of 30-45 years. As per the inclusion criteria, 20 female subjects were assigned randomly in control and experimental group (10 in each). They were evaluated by using Modified oxford grading scale, Sandvik severity scale and Incontinence quality of life questionnaire. Pelvic floor muscle rehabilitation was given for 12 weeks for once in a week. The paired‘t’ value was 3.686 which was significant at $P<0.01$ which revealed that there was a significant reduction in severity of urinary incontinence and improvement in quality of life.

Maryam.et.al., (2010) A randomized clinical trial was conducted in Iran to evaluate the effect of pelvic floor muscle training or kegel exercise with or without assistance by a resistance device [kegel master device] on the urinary incontinent women with uro genital distress. Among 91 women, 41 received

Assisted pelvic floor muscle training (APFMT), 50 received Pelvic floor muscle training (PFMT). Incontinence quality of life questionnaire, incontinence impact questionnaire and uro genital distress inventory were used as a tool. Paired‘t’ test showed a significant improvement in both groups- 1 and 3 months of intervention. Pelvic muscle training with or without kegel master showed no apparent difference to each other; however these two methods are effective in reducing urinary incontinence among women.

Escola.et.al., (2011) A systemic review was done in Portuguese to determine the effects of pelvic floor muscle training in the management of female stress urinary incontinence. Review articles were gathered between 1999-2009.Randomized control trial and quasi randomized controlled trial were included, clinical trials were excluded. Out of 19 studies, review found that there was consistent evidence from of high quality randomized trials that pelvic floor muscle training [PFMT] alone or in combination with adjunctive therapies such as biofeedback and electrical stimulation was effective treatment for women with stress urinary incontinence with of cure and cure or improvement up to 70% to 97% respectively.

Marye.et.al., (2011) The randomized control trial was conducted to evaluate the effect of pelvic floor muscle training or kegel exercise with or without assistance by a resistance device [kegel master device], n=41 received assisted PFMT after complete training kegel master device were used twice daily for 15 minutes each session for 12 weeks; n=50 received PFMT, after complete training kegel exercise were done twice daily for 15 minutes. Quality of life and strength of pelvic floor muscles assessed through questionnaire. Paired‘t’ test showed a significant improvement in 1 and 3 months after intervention.

Erwin.etal., (2012) A multicenter randomized control trial was conducted to compare a group based behavioral exercise program to prevent or reduce urinary incontinence among elderly women residing in the old age homes with

usual care in Netherland. Bladder diary were used to collect the report regarding symptoms of urinary incontinence, incontinence quality of life questionnaire was used to assess the quality of life and physical performance test was done to assess the physical activity. Descriptive and inferential statistics were used to do the data analysis which showed 27% of reduction in urinary incontinence, 13% of improvement in physical performance and better improvement in the scores of quality of life in experimental group than control group. This study revealed it was feasible to conduct a study among institutionalized older women.

Heena.A.Bhatt.et.al., (2013) A study was conducted in Ahmadabad to check the effectiveness of pelvic floor muscle exercises to reduce the severity of stress urinary incontinence and to improve their impact on the quality of life. Pre-test –post test design was used. Twenty women suffering from stress urinary incontinence above the age of 40 years were selected by convenient sampling method. Treatment was given for a period of 4 weeks (3 sessions per week) for a period of 20-30 minutes. Modified oxford scale (MOS) was used to assess the pelvic floor muscle strength; King's Health Questionnaire was used to assess the quality of life. There was a significant difference found in the mean of the pelvic floor muscle strength (t=3.684, P=0.0016) before and after treatment with pelvic floor muscle exercise. There was a significant difference found in the mean of the quality of life scores (t=3.833, P=0.0011) before and after treatment which showed there was a significant improvement in quality of life and reduction in the severity of stress urinary incontinence.

Thomas.et.al., (2014) A Prospective cohort study was conducted in Greenville to characterize change in mobility within the community utilizing the Life space Assessment (LSA) questionnaire in women undergoing non–surgical Urinary incontinence treatment. Mobility and symptoms using LSA, Uro genital Distress inventory (UDI-6) and Incontinence Impact Questionnaire (IIQ) at baseline and 2,6 and 12 months post treatment.70 ambulatory,

community dwelling women, aged 65 years or older, seeking non-surgical care for Urinary incontinence were recruited.LSA score decreased from baseline to 2 months (mean±SD;63±29 to 56± 28,P<0.001) and was sustained at 6 and 12 months (54± 28,54 ± 28).Uro genital distress inventory scores improved from 36± 23 to 25 ± 24,P<0.001, at 2 months, and improvement persisted at 6 and 12 months (22 ± 22,21± 24).

Cavkaytar.et.al., (2014) A study was conducted in Turkey to evaluate the home based Kegel exercises on quality of life in women with stress and mixed urinary incontinence. To evaluate the pelvic floor muscle strength, the modified oxford grading system was used before and after kegel exercising. The incontinence impact questionnaire (IIQ-7); Uro genital distress inventory (UDI-6) and the Patient Global Impression of Improvement (PGI-I) questions were compared before and after 8 weeks of kegel exercising. There were statistically significant lower scores in both IIQ-7 and UDI-6 before and after kegel exercises within each group (P<0.001).The mean change of the IIQ-7 and UDI-6 score was statistically significantly higher in the stress urinary incontinence group than in the mixed urinary incontinence group (P=0.023 and P=0.003, respectively).Results of the oxford scale were also statistically significantly higher after kegel exercises within each group (P= <0.001).In total,68.4% of the women in the stress urinary incontinence group and 41.2% of the women in the Mixed urinary incontinence group reported improvements which were statistically significant(P=0.02).

SECTION C:

STUDIES RELATED TO NURSES ROLE IN BLADDER RETRAINING PROGRAMME AMONG WOMEN WITH URINARY INCONTINENCE:

Wagg., (2005) A descriptive study was done in England to assess the quality of care for people over 68 years of incontinence.488 residents with urinary incontinence with a mean age of 86 years were selected. Questionnaires were used to collect the data and it was entered electronically. The results revealed that 74% stated integrated continence services were available locally.50% stated that there was an availability of continence advisors.70% of residents documented incontinence, 43% documented nocturnal enuresis and 33% documented nocturnal frequency. There is an urgent need to establish fundamentals of incontinence care in medical and nursing practice.

Sjostorm.et.al., (2013) A randomized control trial was conducted to compare two treatment programmes for stress urinary incontinence in Sweden. 250 community women between the age group of 18-70 years with stress urinary incontinence were selected.124 women received an internet based treatment programme including e-mail support and cognitive behavioral therapy assignment; 126 women received a treatment programme by post. Both programmes focused mainly on pelvic floor muscle training. The intervention was given for 3 months. Symptom score was assessed by International consultation on Incontinence Questionnaire Short form (ICIQ-UISF) and condition specific quality of life (ICIQ- Lower urinary tract symptoms quality of life) (ICIQ-LUTSQOL).The results revealed concerning primary outcome the treatment effects were similar between groups whereas for secondary outcome the internet based treatment was more effective; internet based treatment for stress urinary incontinence was a new promising treatment alternative.

Sonja Karon., (2005) The study was conducted in Newzealand to assess the effectiveness of a bladder retraining programme using behavioral therapies in reducing episodes of urinary incontinence and improving outcomes in an adult sample.50 adult were selected. Out of which 34 were females and 16 were males. The adult enrolled in the bladder retraining programme were between the age group of 27 to 98 years and the mean age was 68.3.Bladder diary and king's health questionnaire was used as a tool. Bladder retraining programme was given for a period of 1 month for a period of 30 minutes and the adults were followed up to 9 months to indentify the progress. Findings showed there was a significant reduction in urinary symptoms and improved quality of life. There were statistically significant reductions in nocturia and episodes of urinary incontinence as well as increase in the mean amount of urine voided in milliliters.

CHAPTER III

METHODOLOGY

This chapter includes research approach, research design, research setting, population, sample, criteria for selection of sample, sampling procedure, description of the tool, scoring procedure, validity, reliability, pilot study, and method of data collection and plan for data analysis and protecting the human subjects.

RESEARCH APPROACH

An evaluative approach was used for this study

RESEARCH DESIGN

Quasi experimental non equivalent pre test and post test control group design which was adopted to assess the effectiveness of bladder retraining programme among women with urinary incontinence.

Schematic representation

GROUP	PRETEST	INTERVENTION	POST TEST
Experimental group	O1	X	O2
Control group	O1	-	O2

O_1 - Collection of demographic data, screening to assess the degree of Urinary incontinence, pre test to assess the degree of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group

X - Bladder retraining programme was given for 15 minutes morning and evening for a period of 30 days in experimental group.

O_2 - Post test to assess the degree of uro genital distress and quality of life among women with urinary incontinence in experimental and control group.

-

RESEARCH SETTING:

The study was conducted in the selected old age homes, Coimbatore. For the experimental group St. Joseph's Home for the aged and destitute was selected, located in Podanur, Coimbatore district.125 old age people are residing in the home. Old age home has separate block for both male and female. This has the strength of about 60 old age women and 65 old age men. For females, total 4 rooms are provided; these rooms are considered as sick ward-1, sick ward-2, female ward-1 and female ward-2. For male, total 3 rooms-sick ward-1, male ward-1 and male ward-2. It has all the facilities like dining hall, kitchen, garden, chapel and common hall.

The common hall can accommodate 150 members at a time. Sick patients are treated in Government Hospital. Medical camps are organized by various hospitals and Nursing colleges. During the festival and anniversary sponsors will provide food. They are getting only Indian sponsors, not getting any foreign funds. Their voting rights are respected and they have given opportunity to vote. They have own vehicle for transport. Television is fixed in the female room, common hall and in dining hall. An indoor game facility such as carom board is provided. Newspapers are given to know the current issues. Prayer is organized every day morning and evening. Depends on their ability routine works such as gardening, watering the plants, involving in kitchen works are encouraged. Separate ward sisters are assigned to take care of the male ward, female ward and sick ward .Medical staff will identify the medical needs of the old age people and provide care such as administering medications, applying dressing and will intimate the progress of the old age people's health to the doctor. Every Sunday Visitors are allowed to visit.

For the people with urinary incontinence, nearby their cot, commode chair is kept and the toilet is very near to the sick room. Bedpans and urinals are provided for the bedridden patients. They are using mackintosh and draw sheet, adult diapers to reduce the discomfort. Very sick patients are catheterized and monitored by the staff nurse.

For the control group, St. Thomas Home for the aged, Ramanathapuram, Coimbatore was selected which is located in the campus of St. Alvernia Higher secondary school, which has the strength of 50 old age women. They have a total of 6 rooms with attached bathroom and toilet. They have a courtyard where they will gather for prayer. Two sisters are assigned to take care of the needs of the old age people. They have facilities like, kitchen, dining hall, garden and recreation room. Funding is by the church and sponsors. Hygienic food is prepared and provided. For medical treatment, they go to nearby clinics. Once in a month medical checkups are organized. Visitors are allowed to visit on Sunday. They provide mackintosh, commode chairs, bedpan and adult diapers for the women with urinary incontinence.

POPULATION:

The target population selected for the study was women within the age group of 55-70 years.

SAMPLE

Women with urinary incontinence who are residing in St. Joseph's Home for the aged and destitute, Podanur and St. Thomas Home for the aged, Ramanathapuram, Coimbatore.

CRITERIA FOR SELECTION OF SAMPLE

INCLUSION CRITERIA

3. Woman who are ambulatory and able to perform daily activities.
4. Woman with very mild, mild, moderate and severe degree of urinary incontinence.

EXCLUSION CRITERIA

1. Woman who are critically ill, bed ridden and catheterized
2. Woman who are physically challenged.
3. Woman who are not willing to participate.

4. Woman who had undergone any uro genital surgeries.

SAMPLE SIZE AND SAMPLING PROCEDURE

SAMPLE SIZE

The sample size for the study consists of 60 women; 30 in experimental group from St. Joseph's Home for the aged and destitute, Podanur and 30 in control group from St. Thomas home for the aged, Ramanathapuram, Coimbatore.

SAMPLING TECHNIQUE

Non probability purposive sampling technique was used to select the samples for experimental and control group.

INSTRUMENT AND SCORING PROCEDURE

INSTRUMENT:

The tool consists of four parts.

PART-I

It consists of demographic variables such as the age, religion, marital status, education and number of children.

PART-II

Revised urinary incontinence scale (RUIS) was used to assess the degree of urinary incontinence. The RUIS has 5 questions. A score of 0-3 was considered as very mild, 4-8 was considered as mild, a score of 9-12 was considered as moderate and a score of 13 or above was considered as severe urinary incontinence. Total score was 16.

Sansoni.et.al., (2011)

PART-III

Uro genital distress inventory was used to assess the degree of uro genital distress. It has 18 questions. It was scored as [not at all-0, slightly-1, moderately-2, and greatly-3].Total score was 54.

Harvey.et.al., (2001)

PART-IV

King's health questionnaire was used to assess the quality of life. It has 3 parts and these parts are calculated by using formulas. The aspects included in this scale are general health perception, incontinence impact, role limitations, physical limitations, social limitations, personal relationships, emotions, sleep /energy, severity measures. Each aspect is given a score of 100 and the total score is 900.

Cardoza.et.al., (2001)

SCORING PROCEDURE

PART II

Revised urinary incontinence scale was used to assess the degree of urinary incontinence. Total score was 16.

The score was interpreted as follows,

S.NO.	DEGREE OF URINARY INCONTINENCE	SCORE	PERCENTAGE (%)
1.	Very mild	0-3	0-24%
2.	Mild	4-8	25-50%
3.	Moderate	9-12	51-75%
4.	Severe	13-16	76-100%

PART III:

Urogenital distress inventory was used to assess the degree of uro genital distress.

The score was interpreted as follows,

It has got 18 questions. Total score was 54. It was rated as below,

S.NO.	DEGREE OF URO GENITAL DISTRESS	SCORE	PERCENTAGE (%)
1.	Not at all distressed	0-14	0-26%
2.	Slightly distressed	15-28	27-52%
3.	Moderately distressed	29-42	53-78%
4.	Greatly distressed	43-54	79-100%

PART IV

Kings health questionnaire was used to assess the quality of life. It has 2 parts;

Part I - consists of general health perception and incontinence impact.

Part II - consists individual scores for role limitations, physical and social limitations, personal relationships, emotions, sleep/energy and severity measures. Total Score was 900.The scoring is done as follows,

PART 1 SCORE:

The **Part1** score is calculated using the sum of the overall scores from questions **1.** and **2.** Patient's responses to questions **1.** and **2.** are scored as follows:

	Response	**Score**
Q1. (General Health perceptions)	Very good	1
	Good	2
	Fair	3
	Poor	4
	Very poor	5

Q1.Overall Score =((Score to Q1-1)/4)x100

	Response	**score**
Q2.(Incontinence impact)	Not at all	1
	A little	2
	Moderately	3
	A lot	4

Q2.Overall Score= ((Score to Q2-1)/3) x 100

PART 1 SCORE = (Q1.OVERALL SCORE) + (Q2.OVERALL SCORE)

PART 2 SCORE

The **Part 2** score is calculated using the sum of the scores from questions **3.** To**9.** Patients responses to questions **3.** to **9**. are scored as for **Q2.,** above.

Note: For Q5., a response of ‘‘Not applicable’’ should be scored as 0(Zero).

Question	Conditions	Overall scores
Q3.(Role limitations)		(((scores to Q3A +3B-2)/6)x100
Q4.(Physical limitations)		(((scores to Q4A+4B)-2)/6x100
Q5.(Social limitations)	[If 5C >/=1]	(((scores to Q4C+4D+5C)-3/9)X100
	[If 5C=0]	(((score to Q4C+4D)-2)/6)x100
Q6.(Personal relationships)	[If 5A+5B>=2]	(((scores to Q5A+5B)-2)/6x100
	[If 5A+5B=1]	(((scores to Q5A+5B)-1)/3x100
	[If 5A+5B=0]	Treat as missing value
Q7.(Emotions)		(((score to Q6A+6B+6C)-3)/9x100
Q8.(Sleep/energy)		(((score to Q7A+7B)-2)/6)x100
Q9.(severity measures)		(((scores to Q8A+8B+8C+8D)-4)/12)x100

PART 2 SCORE=(OVERALL SCORES:Q3+Q4+Q5+Q6+Q7+Q8+Q9).

S.NO.	QUALITY OF LIFE	SCORE	PERCENTAGE (%)
1	Highly satisfied	0-300	0-33%
2	Moderately satisfied	301-600	34-66%
3	Less satisfied	601-900	67-100%

Lower score-better quality of life

Mapi Research Trust., (2011)

VALIDITY

The validity of the tool was established in consultation with 4 nursing experts and one urologist. Standardized tool was used to assess the degree of urinary incontinence, uro genital distress and quality of life.

RELIABILITY

Reliability of the uro genital distress inventory was established by testing the internal consistency by using Cronbach's alpha formula and it was found to be reliable (r = 0.7). Reliability of King's Health Questionnaire was established by testing the internal consistency using Cronbach's alpha formula and it was found to be reliable (r = 0.93).Stability of the uro genital distress inventory was tested by Karl pearson coefficient formula and it was found to be reliable (r=0.85).Stability of the King's Health questionnaire was tested by Karl pearson coefficient formula and it was found to be reliable (r=0.83).

PILOT STUDY

Pilot study was conducted in St. Joseph's old age Home and Real Estate old age Home, Dharapuram. The researcher obtained permission from the institution and from the participants prior to the study, the purpose of the study was explained to the subjects. The pilot study was conducted for a period of 2 weeks. The data was collected from 10 samples, 5 women in experimental and 5 women in control group. On the first day after screening the samples using revised urinary incontinence scale, Pre test was conducted using uro genital distress inventory and king's health questionnaire. Bladder retraining programme was given to the women individually in experimental group for 2 weeks. Each session lasts for about 15 minutes twice a day. On the 14^{th} day post test was conducted for the experimental group and in control group by using the same tool.

The paired 't' test of pilot study showed that mean pre test and post test scores of uro genital distress among women with urinary incontinence in experimental group were 19.4 (SD $\pm$ 6.107) and 7(SD$\pm$6.324) respectively.

The‘t’ value was 12.62 which was significant at P <0.05 level. The mean pre test and post test scores of quality of life among women with urinary incontinence in experimental group were 428 (SD± 140.30) and 160(SD±111.2) respectively. The‘t’ value was 8.742 which was significant at P <0.05 level.

The Independent ‘t’ test showed that the mean post test scores of uro genital distress among women with urinary incontinence in experimental and control group were 7 (SD±6.324) and 17(SD±1.58) respectively. The independent‘t’ value was 3.450(table value=2.31) which was significant at P<0.05 level. The mean post test scores of quality of life among women with urinary incontinence in experimental and control group were 160 (SD±111.2) and 345.34(SD±38.49) respectively. The independent‘t’ value was 3.517(table value=2.78) which was significant at P<0.05 level. Hence, the pilot study was feasible to conduct the main study.

DATA COLLECTION PROCEDURE

The main study was conducted in selected old age homes St. Joseph’s Home for the aged and destitute, Podanur for experimental group and St. Thomas Home for the aged, Ramanathapuram, Coimbatore was selected for control group. Data collection was done for a period of 6 weeks. The investigator obtained written permission from the superior of the old age home. The oral permission was obtained from each participant prior to the study. The purposive sampling technique was used to select 60 samples, out of which 30 were in experimental group and 30 were in control group.

On 1st day, screening was done by using revised urinary incontinence scale and selected 30 samples for the experimental group. Demographic variables were collected by interview and then the pre test was conducted to the participants by using uro genital distress inventory and king’s health questionnaire in experimental group. On 3rd day Bladder retraining programme

which includes Kegel exercises such as elevator, quickies and long haul was taught to the participants individually by the researcher and made them to do the exercises for 15 minutes which was carried out in the morning and evening for a period of 30 days to enhance the bladder control. After the intervention post test was conducted on the 30th day to assess the reduction in uro genital distress and improvement in quality of life. For the control group , on the 2nd day, screening was done by using revised urinary incontinence scale, demographic variables was collected by interview and then pre test was conducted to the participants by using uro genital distress inventory and king's health questionnaire . On the 31st day post test was conducted by using uro genital distress inventory and king's health questionnaire. The collected data were analyzed and tabulated using descriptive and inferential statistics.

PLAN FOR DATA ANALYSIS

The Data collected was analyzed by using descriptive and inferential statistics.

S. NO	DATA ANALYSIS	METHOD	PURPOSE
1	Descriptive statistics	Frequency, percentage.	To describe the demographic variables of women with urinary incontinence. To assess the pre test level of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group. To assess the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group.
2.	Inferential	Mean,	Comparison between the pre test and post test

	statistics	Standard deviation Paired 't' test	level of uro genital distress and quality of life among women with urinary incontinence in experimental group.
		Independent 't' test	To find the effectiveness of bladder retraining programme on reduction of uro genital distress and improvement in quality of life among women with urinary incontinence between experimental and control group.
		Correlation coefficient	To find the correlation between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.
		Chi square test	To find the association between the post test level of uro genital distress and quality of life among women with urinary incontinence with their selected demographic Variables in experimental group.

PROTECTING THE HUMAN SUBJECTS

The research proposal was approved by the dissertation committee prior to the conduction of the Pilot study and main study. The written permission was obtained from the superior of the St. Joseph's Home for the aged and destitute, Podanur and St. Thomas Home for the aged, Ramanathapuram, Coimbatore. Oral consent was obtained from each subject before starting the data collection and confidentiality was maintained.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore.

ORGANIZATION OF DATA

The collected data has been organized and tabulated as follows:

SECTION A: Distribution of demographic variables among women with urinary incontinence in experimental and control group.

SECTION B: Assess the pre test and post test level of uro genital distress and quality of life among women with urinary incontinence in experimental and control group.

SECTION C: Compare the pre test and post test level of uro genital distress among women with urinary incontinence in experimental group.

SECTION D: Compare the pre test and post test level of quality of life among women with urinary incontinence in experimental group.

SECTION E: Assess the effectiveness of bladder retraining programme on level of uro genital distress among women with urinary incontinence between experimental and control group.

SECTION F: Assess the effectiveness of bladder retraining programme on level of quality of life among women with urinary incontinence between experimental and control group.

SECTION G: Find the relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.

SECTION H: Find the association between the post test level of uro genital

distress among women with urinary incontinence and their selected demographic variables in experimental group.

SECTION I: Find the association between the post test level of quality of life among women with urinary incontinence and their selected demographic variables in experimental group.

SECTION A: DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG WOMEN WITH URINARY INCONTINENCE

TABLE 1: Frequency and percentage distribution of demographic variables among women with urinary incontinence in experimental group and control group.

$n_1 = 30$, $n_2 = 30$

Demographic Variables	Experimental Group		Control Group	
	f	%	f	%
Age				
a) 55-60 years	0	0	2	6.7
b) 61-65 years	5	16.7	9	30
c) 66-70 years	25	83.3	19	63.3
Religion				
f) Hindu	21	70	19	63.3
g) Muslim	3	10	1	3.3
h) Christian	6	20	10	33.4
Marital status				
c) Married	2	6.7	4	13.3
d) Single	4	13.3	3	10
e) Widow	24	80	23	76.7
Education				
c) Illiterate	21	70	14	46.6
d) Primary education	7	23.3	10	33.4

e) Secondary education	2	6.7	6	20
Number of children				
b) One	4	13.3	7	23.3
c) Two	10	33.3	7	23.3
d) More than two	5	16.7	6	20
e) Not applicable	11	36.7	10	33.4

Table 1 showed that the distribution of demographic variables among women with urinary incontinence.

Regarding Age, In experimental group 25(83.3%) were in the age group of 66-70 years, 5(16.7%) were in the age group of 61-65 years; In control group, 19(63.3%) were in the age group of 66-70 years; 9(30%) were in the age group of 61-65 years; 2(6.7%) were in the age group of 55-60 years. **Fig (2)**

Regarding Religion, In experimental group, majority of the participants 21(70%) were Hindus, 3(10%) were Muslims, 6(20%) were Christians; In control group, majority were 19(63.3%) Hindus, 1(3.3%) were Muslim, 10(33.4%) were Christians. **Fig (3)**

Regarding Marital status, In experimental group, majority of samples 24(80%) were widow, 4(13.3%) were single, 2(6.7%) were married; In control group, 23(76.7%) were widow; 3(10%) were single, 4(13.3%) were married. **Fig (4)**

Regarding Educational status, In experimental group, 21(70%) were illiterate; 7(23.3%) had primary education, 2(6.7%) had secondary education; In control group, 14(46.6%) were illiterate, 10 (33.4%) had primary education and 6(20%) had secondary education. **Fig (5)**

Regarding Number of children, In experimental group, 4(13.3%) had one child, 10(33.3%) had two children, 5(16.7%) had more than two children, 11(36.7%) came under the category of not applicable; In control group 7(23.3%) had one child, 7(23.3%) had two children,6(20%) had more than two children,10(33.4%) came under the category of not applicable .**Fig (6)**

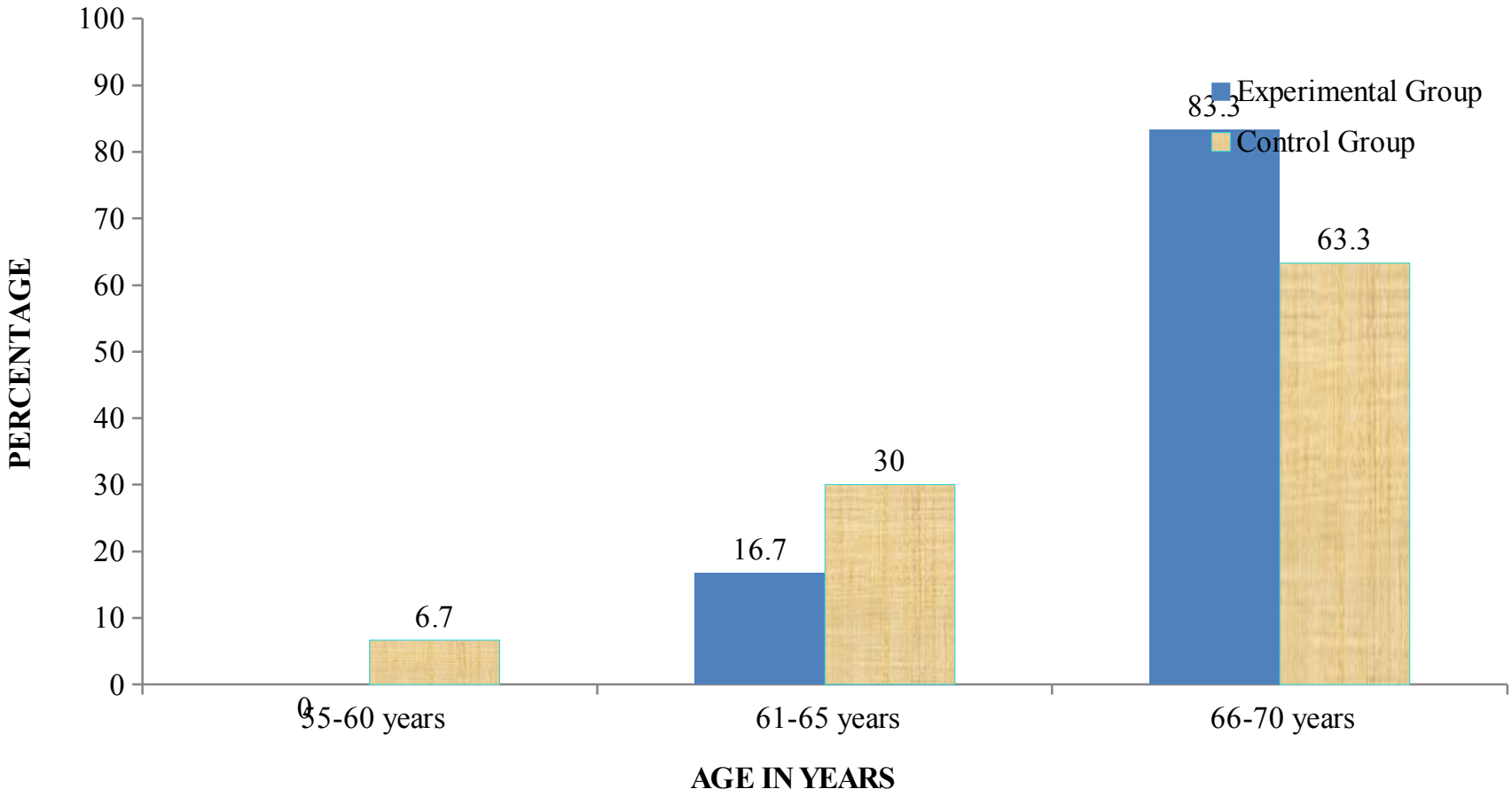


Figure 2: Percentage distribution of women with urinary incontinence according to their age in years in experimental and control group.

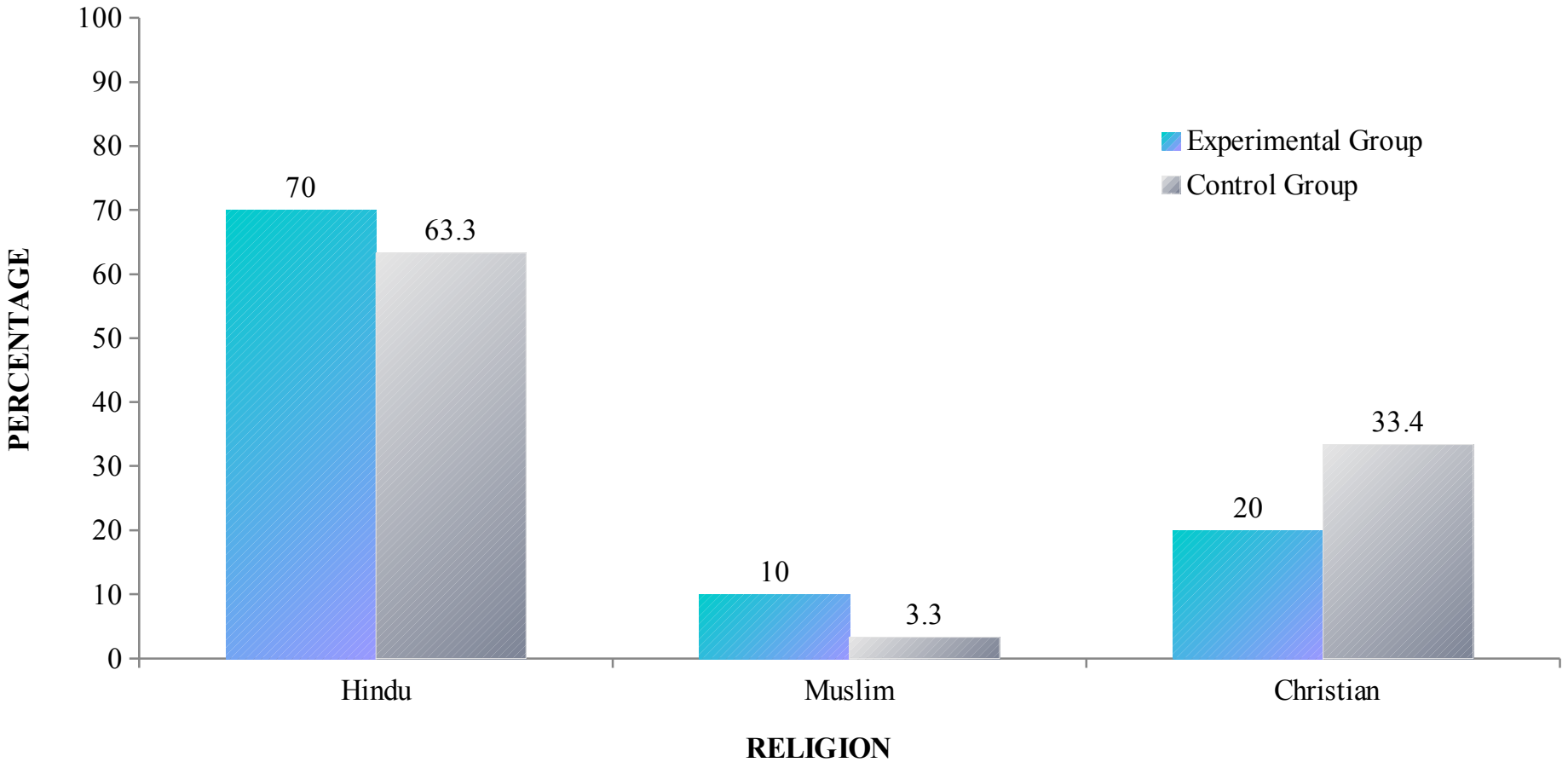


Figure 3: Percentage distribution of women with urinary incontinence according to their religion in experimental and control group.

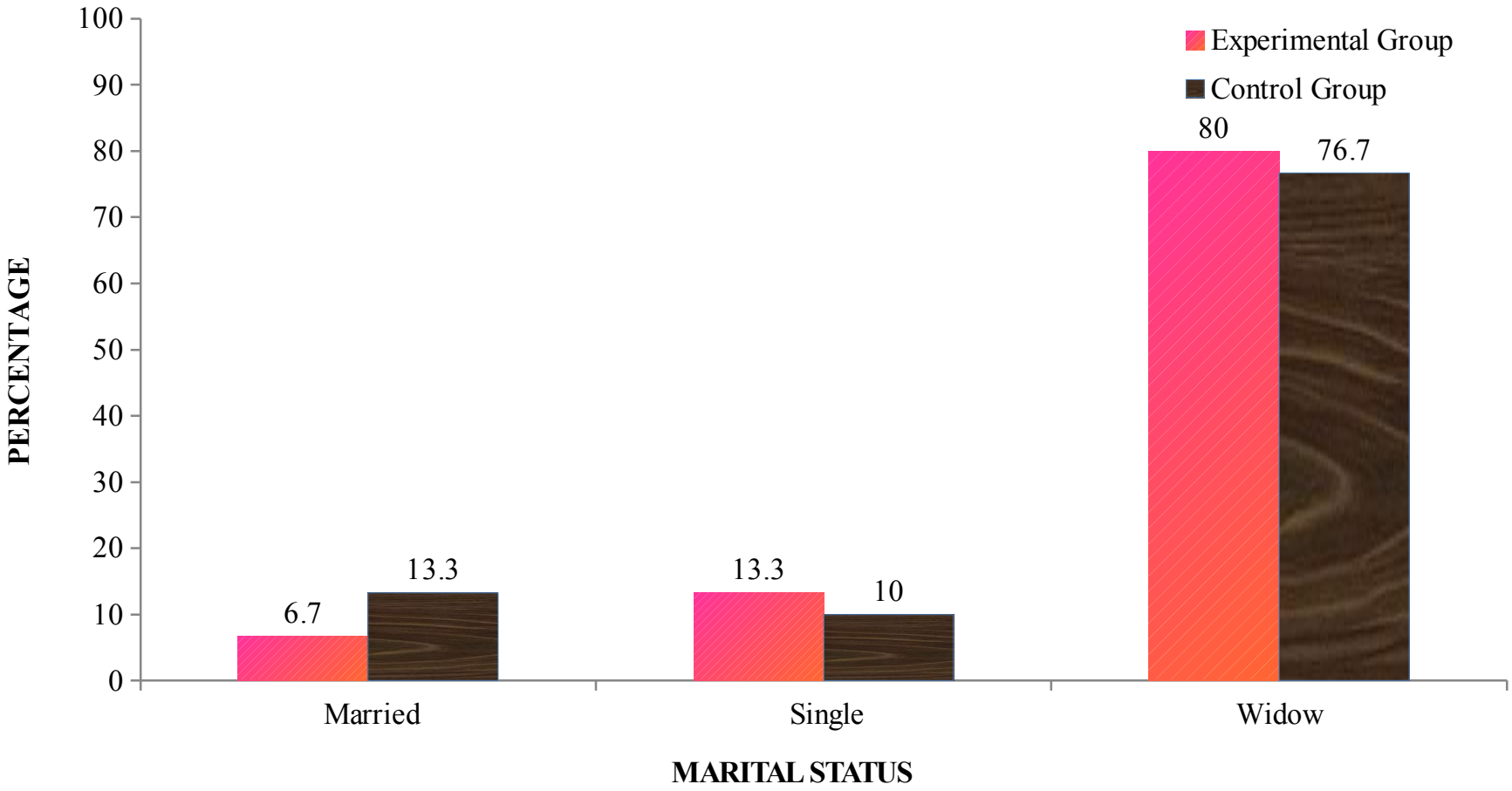


Figure 4: Percentage distribution of women with urinary incontinence according to their marital status in experimental and control group.

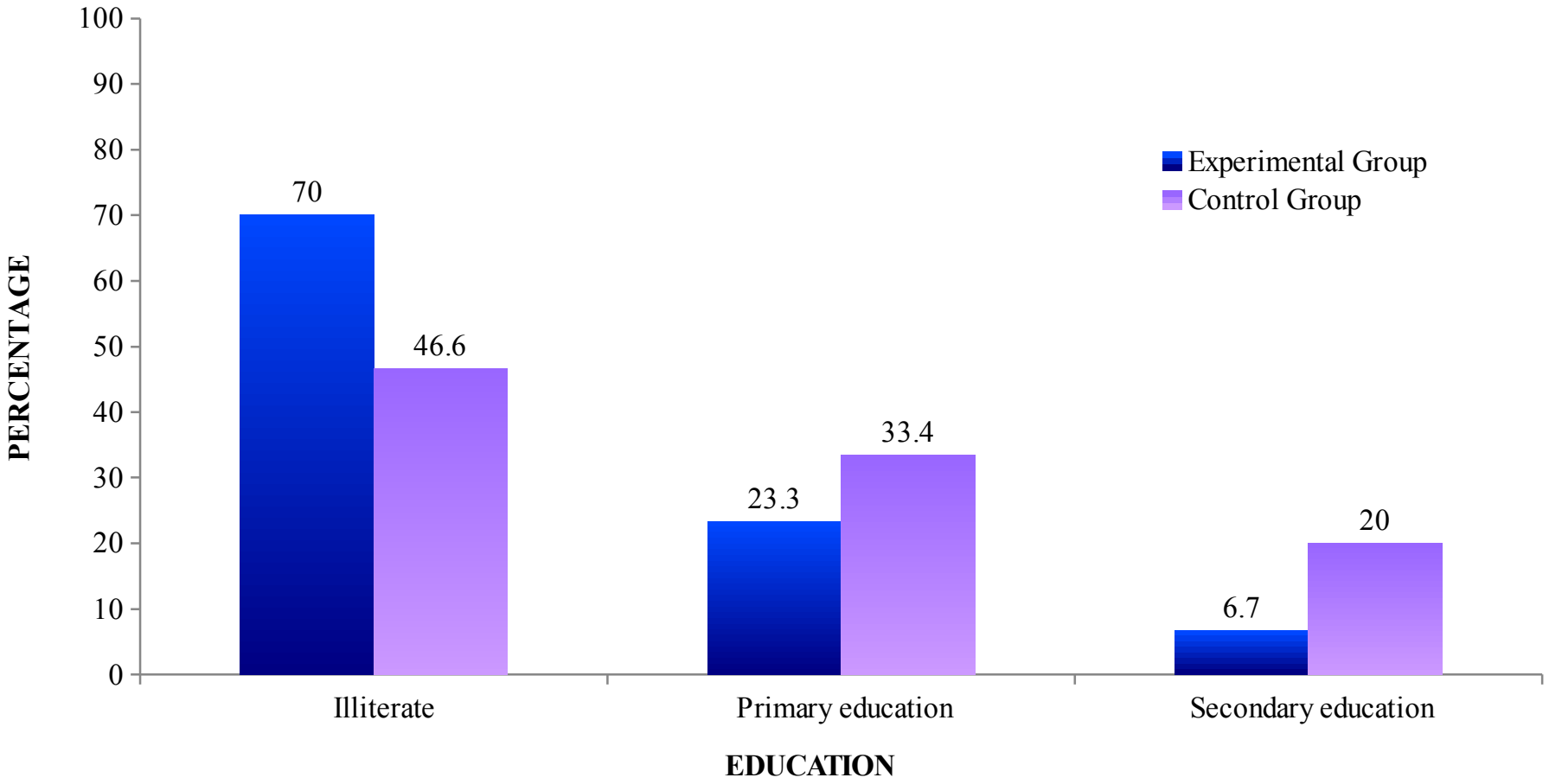


Figure 5: Percentage distribution of women with urinary incontinence according to their education in experimental and control group.

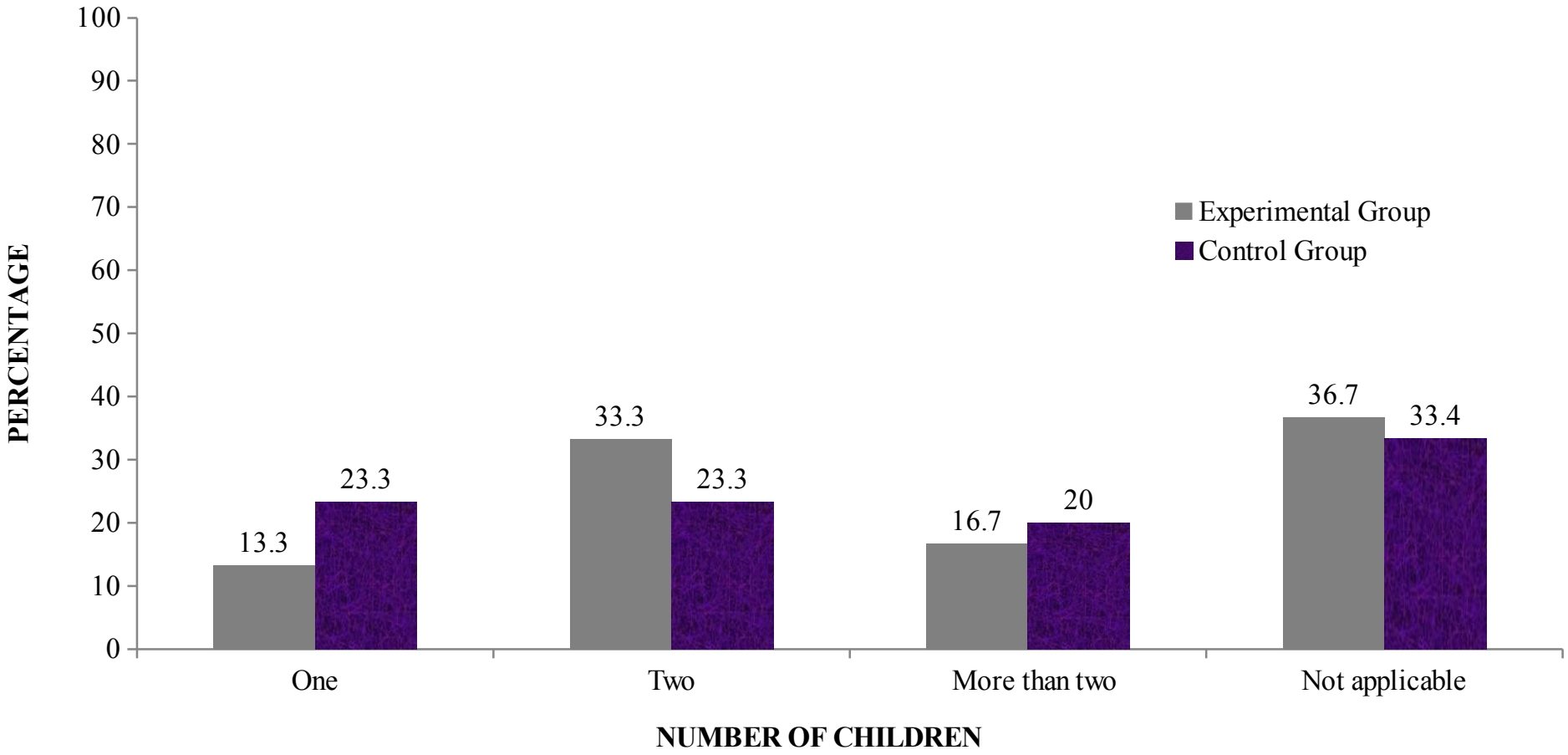


Figure 6: Percentage distribution of women with urinary incontinence according to the number of children in experimental and control group.

SECTION B: ASSESS THE PRE TEST AND POST TEST LEVEL OF URO GENITAL DISTRESS AND QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN EXPERIMENTAL GROUP AND CONTROL GROUP.

TABLE 2: **Frequency and percentage distribution of pre test and post test level of uro genital distress among women with urinary incontinence in experimental and control group.**

n_1=30, n_2=30

S.NO.	Degree of uro genital distress	Pre test				Post test			
		Experimental Group		Control Group		Experimental Group		Control Group	
		f	%	f	%	f	%	f	%
1.	Not at all distressed	0	0	3	10	26	86.7	0	0
2.	Slightly distressed	23	76.7	17	56.7	4	13.3	10	33.3
3.	Moderately distressed	7	23.3	8	26.7	0	0	18	60
4.	Greatly distressed	0	0	2	6.6	0	0	2	6.7

Table 2 depicted that in pre test level of uro genital distress among experimental group, majority of them 23(76.7%) were slightly distressed, 7(23.3%) were moderately distressed. In control group 3(10%) were not at all distressed, 17(56.7%) were slightly distressed,8(26.7%) were moderately distressed and 2(6.6%)were greatly distressed; In post test level of uro genital distress among experimental group 26(86.7%) were not at all distressed, 4(13.3%) were slightly distressed; among control group 10(33.3%) were slightly distressed, 18(60%) were moderately distressed, 2(6.7%)were greatly distressed. **Fig.7.**

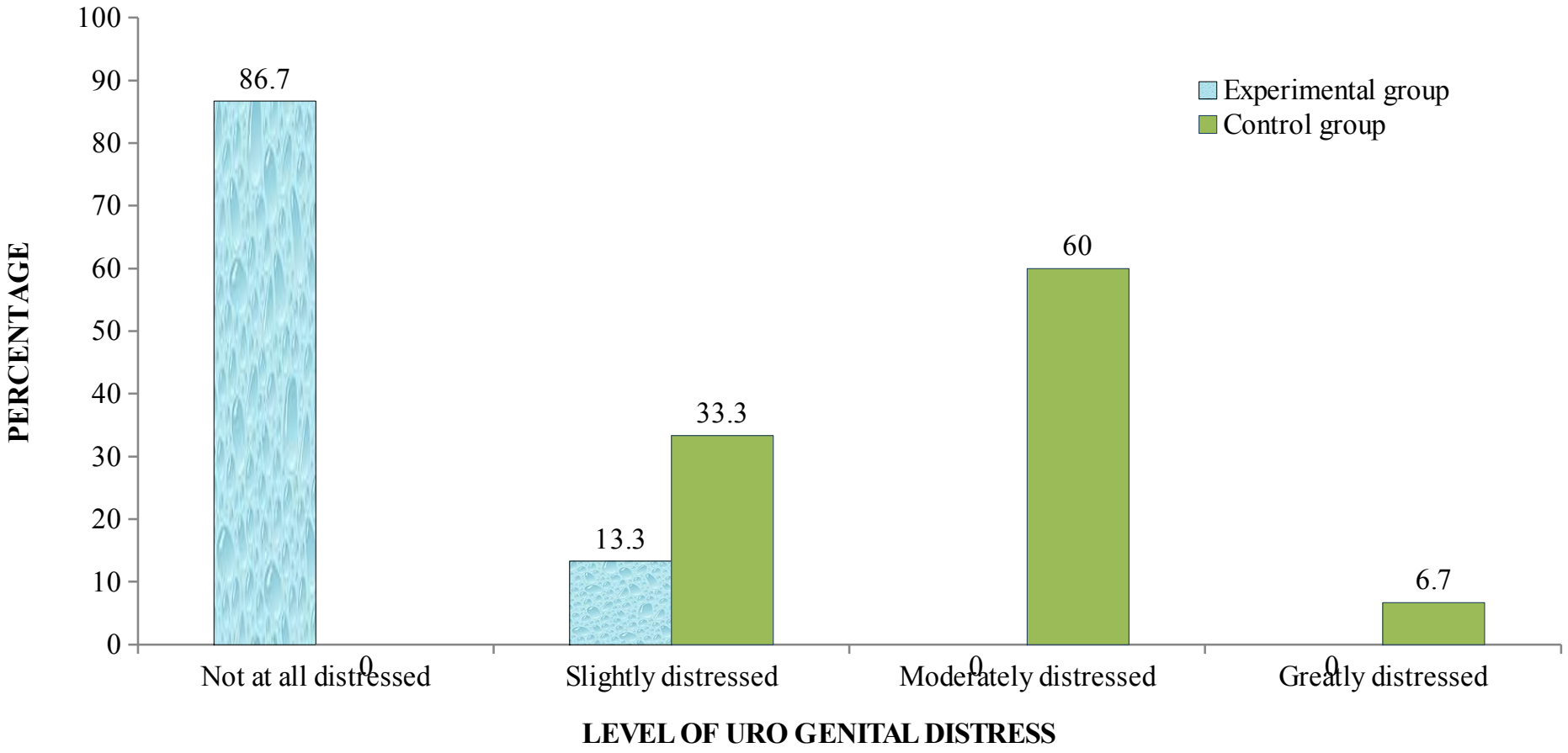


Figure 7: Percentage distribution of post test level of uro genital distress among women with urinary incontinence in experimental group and control group.

TABLE 3: **Frequency and percentage distribution of pre test and post test level of quality of life among women with urinary incontinence in experimental and control group.**

n_1=30, n_2=30

S.NO.	Quality of life	Pre test				Post test			
		Experimental Group		Control Group		Experimental Group		Control Group	
		f	%	f	%	f	%	f	%
1.	Highly satisfied	4	13.3	7	23.3	27	90	0	0
2.	Moderately satisfied	20	66.7	20	66.7	3	10	27	90
3.	Less satisfied	6	20	3	10	0	0	3	10

Table 3 depicted that in pre test of experimental group 4(13.3%) had highly satisfied quality of life, 20(66.7%) had moderately satisfied quality of life, 6(20%) had less satisfied quality of life; Among pre test of control group 7(23.3%) had highly satisfied quality of life, 20 (66.7%) had moderately satisfied quality of life, 3(10%) had less satisfied quality of life. In the post test of quality of life scores among experimental group, 27(90%) had highly satisfied quality of life, 3(10%) had moderately satisfied quality of life. Among control group, 27(90%) had moderately satisfied quality of life, 3(10%) had less satisfied quality of life.**Fig.8**

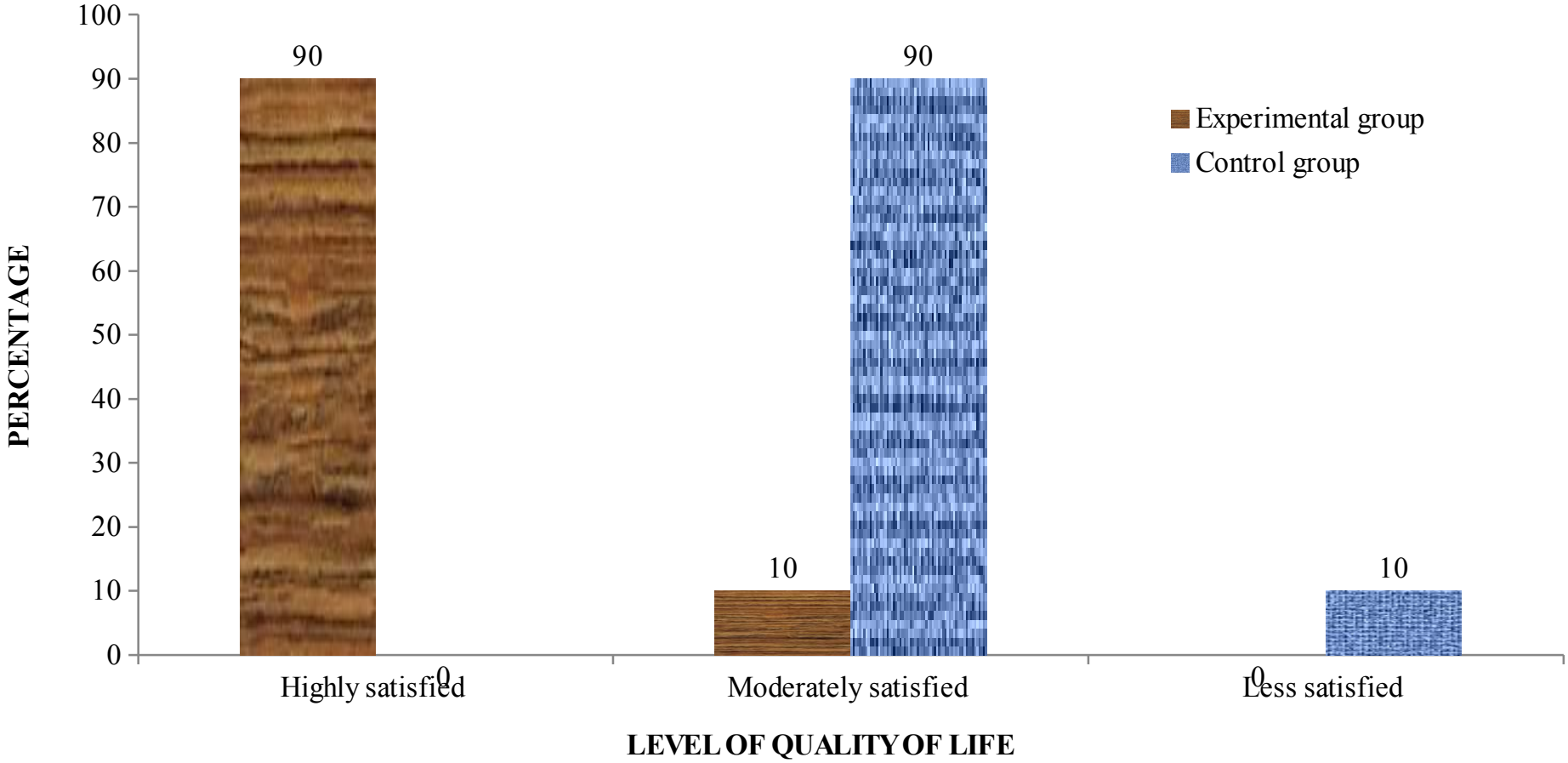


Figure 8: Percentage distribution of post test level of quality of life among women with urinary incontinence in experimental group and control group.

SECTION C: COMPARE THE PRE TEST AND POST TEST LEVEL OF UROGENITAL DISTRESS AMONG WOMEN WITH URINARY INCONTINENCE IN EXPERIMENTAL GROUP.

TABLE 4: Comparison of mean score, standard deviation, mean difference and paired‘t’ value of pre test and post test level of uro genital distress among women with urinary incontinence in experimental group.

n= 30

S. No	Degree of Uro Genital Distress	Mean	Standard Deviation	Mean Difference	Paired ‘t’ value	Table Value	Inference
1	Pre test	24.2	7.224	16.04	15.4	2.05	S
2	Post test	8.16	5.347				

df= 29 P<0.05

Table 4 showed that mean pre test and post test scores of uro genital distress among women with urinary incontinence in experimental group were 24.2(SD±7.224) and 8.16(SD±5.347) respectively. The mean difference was 16.04. The ‘t’ value was 15.4 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in reducing the uro genital distress among women with urinary incontinence. Therefore the research hypothesis H_1 that is the mean post test level of uro genital distress score is significantly lower than the mean pre test level of uro genital distress scores in experimental group was accepted.

SECTION D: COMPARE THE PRE TEST AND POST TEST LEVEL OF

QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN EXPERIMENTAL GROUP.

TABLE 5: Comparison of mean score, standard deviation, mean difference and paired‘t’ value of pre test and post test level of quality of life among women with urinary incontinence in experimental group.

n=30

S. No	Quality of Life	Mean	Standard Deviation	Mean Difference	Paired ‘t’ value	Table Value	Inference
1	Pre test	449.5	138.1	276.08	13.83	2.05	S
2	Post test	173.42	100.6				

df= 29 P<0.05

Table 5 showed that mean pre test and post test score of quality of life among women with urinary incontinence in experimental group were 449.5(SD±138.1) and 173.42(SD± 100.6) respectively. The mean difference was 276.08. The ‘t’ value was 13.83 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in improving the quality of life among women with urinary incontinence. Therefore the research hypothesis H_2 that is the mean post test level of quality of life score is highly satisfied significantly than the mean pre test level of quality of life scores in experimental group was accepted.

SECTION E: ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON LEVEL OF

URO GENITAL DISTRESS AMONG WOMEN WITH URINARY INCONTINENCE BETWEEN EXPERIMENTAL AND CONTROL GROUP.

TABLE 6: **Effectiveness of bladder retraining programme on mean scores, standard deviation, mean difference and independent't' value of post test level of uro genital distress among women with urinary incontinence between experimental group and control group.**

n_1= 30; n_2=30

S. No	Degree of Uro Genital Distress	Mean	Standard Deviation	Mean Difference	Independent 't' value	Table Value	Inference
1	Experimental Group	8.16	5.347	22.14	13.97	2.00	S
2	Control Group	30.3	7.655				

df= 58 (P <0.05)

Table 6 showed that mean post test scores of uro genital distress among women with urinary incontinence in experimental and control group were 8.16(SD$\pm$ 5.347) and 30.3 (SD$\pm$7.655) respectively and the mean difference was 22.14. The independent't' value was 13.97, which was significant at P<0.05 level which showed that Bladder retraining programme was effective in reducing the uro genital distress among women with urinary incontinence. Therefore the research hypothesis H_3 that the mean post test level of uro genital distress scores in experimental group is significantly lower than the mean post test level of uro genital distress scores in control group was accepted.

SECTION F: ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON LEVEL OF QUALITY

OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE BETWEEN EXPERIMENTAL AND CONTROL GROUP.

TABLE 7: **Effectiveness of bladder retraining programme on mean scores, standard deviation, mean difference and independent't' value of post test level of quality of life among women with urinary incontinence between experimental group and control group.**

n_1= 30; n_2=30

S. NO	Quality of Life	Mean	Standard Deviation	Mean Difference	Independent 't' value	Table Value	Inference
1	Experimental Group	173.42	100.6	318.28	13.1	2.00	S
2	Control Group	491.7	101.7				

df= 58 (P <0.05)

Table 7 showed that mean post test scores of quality of life among women with urinary incontinence in experimental and control group were 173.42(SD±100.6) and 491.7 (SD± 101.7) respectively. The mean difference was 318.28.The independent't' value was 13.1 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in improving the quality of life among women with urinary incontinence. Therefore the research hypothesis H_4 that the mean post test level of quality of life scores in experimental group is highly satisfied significantly than the mean post test level of quality of life scores in control group was accepted.

SECTION G: FIND THE RELATIONSHIP BETWEEN THE POST TEST LEVEL OF URO GENITAL DISTRESS AND QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE

IN EXPERIMENTAL GROUP.

TABLE 8 : Relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.

n=30

S. No	Variable	Mean	Standard Deviation	Mean Difference	'r' Value	Table value	Inference
1	Post test scores of uro genital distress	8.16	±5.347	165.26	0.74	0.349	Positive correlation
2	Post test scores of quality of life	173.42	±100.6				
	df= 28						P<0.05

Table 8 showed that mean post test scores of uro genital distress and quality of life among women with urinary incontinence in experimental group were 8.16(SD± 5.347) and 173.42 (SD ± 100.6); The mean difference was 165.26 respectively. The 'r' value was 0.74 which showed that there is a Positive relationship between uro genital distress scores and quality of life scores among women with urinary incontinence. Therefore the research hypothesis H_5 that there is significant relationship between the mean post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group was accepted.

SECTION H: FIND THE ASSOCIATION BETWEEN THE POST TEST LEVEL OF URO GENITAL DISTRESS AMONG WOMEN WITH URINARY INCONTINENCE AND THEIR

SELECTED DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP.

TABLE 9: Association between the post test level of uro genital distress among women with urinary incontinence and their selected demographic variables in experimental group.

n=30

S. No	Demographic variables	Degree of uro genital distress								X^2	Table value	Inference
		Not at all distressed		Slightly distressed		Moderately distressed		Greatly distressed				
		f	%	f	%	f	%	f	%			
1.	Age											
	a)55-60 years	-	-	-	-	-	-	-	-		df=1	
	b)61-65 years	4	13.3	1	3.3	-	-	-	-	0.66	3.84	NS
	c)66-70 years	23	76.7	2	6.7	-	-	-	-			
2.	Religion											
	a)Hindu	18	60	3	10	-	-	-	-		df=2	
	b)Muslim	3	10	-	-	-	-	-	-	1.41	5.99	NS
	c)Christian	6	20	-	-	-	-	-	-			
3.	Marital status											
	a)Married	2	6.7	-	-	-	-	-	-		df=2	
	b)Single	4	13.3	-	-	-	-	-	-	0.82	5.99	NS
	c)Widow	21	70	3	10	-	-	-	-			
4.	Education											
	a)Illiterate	18	60	3	10	-	-	-	-		df=2	
	b)Primary Education	7	23.3	-	-	-	-	-	-	3.64	5.99	NS
	c)Secondary Education	2	6.7	-	-	-	-	-	-			
5.	Number of children											

	a)one	4	13.3	-	-	-	-	-	-			
	b)Two	9	30	1	3.3	-	-	-	-		df=3	
	c)More than two	5	16.7	-	-	-	-	-	-	1.8	7.82	
	d)Not applicable	9	30	2	6.7	-	-	-	-			

NS-Not significant P<0.05

Table 9: Chi Square values were calculated to find the association between post test level of uro genital distress scores among women with urinary incontinence. The findings revealed that there was no significant association with demographic variables in experimental group at P<0.05 level of significance. Therefore the research hypothesis H_6 that there is significant association between the post test level of uro genital distress scores among women with urinary incontinence and their selected demographic variables in experimental group was rejected.

SECTION I: FIND THE ASSOCIATION BETWEEN THE POST TEST LEVEL OF QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE AND THEIR SELECTED DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP.

TABLE 10: Association between the post test level of quality of life among women with urinary incontinence and their selected demographic variables in experimental group.

n=30

		Quality of life	x^2	Table	Inf

S. No.	Demographic Variables	Highly Satisfied		Moderately satisfied		Less satisfied			Value	erence
		f	%	f	%	f	%			
1.	Age									
	a)55-60 years	-	-	-	-	-	-		df=1	
	b)61-65 years	4	13.4	1	3.3	-	-	1.9	3.84	NS
	c)66-70 years	24	80	1	3.3	-	-	7		
2.	Religion									
	a)Hindu	19	63.3	2	6.7	-	-		df=2	
	b)Muslim	2	6.7	1	3.3	-	-	2.4	5.99	NS
	c) Christian	6	20	-	-	-	-	7		
3.	Marital status									
	a)Married	1	3.3	1	3.3	-	-		df=2	
	b)single	4	13.4	-	-	-	-	1.6	5.99	NS
	c)widow	22	73.3	2	6.7	-	-	5		
4.	Education									
	a)Illiterate	18	60	3	10	-	-		df=2	
	b)Primary education	7	23.3	-	-	-	-	1.7 9	5.99	NS
	c)secondary education	2	6.7	-	-	-	-			
5.	Number of children									
	a)one	4	13.3	-	-	-	-			
	b)Two	9	30	1	3.3	-	-		df=3	
	c) More than two	5	16.7	-	-	-	-	1.7	7.82	NS
	d)Not applicable	9	30	2	6.7	-	-	7		

NS-Not Significant P<0.05

Table 10: Chi Square values were calculated to find the association between the post test level of quality of life scores among women with urinary incontinence. The

findings revealed that there was no significant association with demographic variables in experimental group at $P<0.05$ level of significance. Therefore the research hypothesis H_7 that there is significant association between the post test level of quality of life scores among women with urinary incontinence and their selected demographic variables in experimental group was rejected.

CHAPTER V

DISCUSSION

The discussion chapter deals with sample characteristics and objectives of the study. The aim of this present study was to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore.

DISTRIBUTION OF SAMPLE CHARACTERISTICS:

Regarding Age, In experimental group 25(83.3%) were in the age group of 66-70 years, 5(16.7%) were in the age group of 61-65 years and none of them were between the age group of 55-60 years; In control group, 19(63.3%) were in the age group of 66-70 years; 9(30%) were in the age group of 61-65 years;2(6.7%) were in the age group of 55-60 years. These findings are consistent with the study findings of **Jennifer.et.al., (2005)** who reported that prevalence of urinary incontinence was increased with age, ranging from 12.2% in women with the age group of 60 to 64 years old to 20.9% in women with the age group of 85 years or older.

Regarding Religion, In experimental group, 21(70%) were Hindus, 3(10%) were Muslims, 6(20%) were Christians; In control group, 19(63.3%) were Hindus, 1(3.3%) were Muslim, 10(33.4%) were Christians.

Regarding Marital status, In experimental group, 24(80%) were widow, 4(3.3%) were single, 2(6.7%) were married; In control group, 23(76.7%) were widow; 3(10%) were single,4(13.3%) were married.

Regarding Educational status, In experimental group, 21(70%) were illiterate; 7(23.3%) had primary education, 2(6.7%) had secondary education; In control group, 14(46.6%) were illiterate, 10 (33.4%) had primary education and 6(20%) had secondary education. These findings are consistent with the study findings of **Sheng-shong.et.al., (2014)**who reported that women with lack of education have a risk to develop urinary incontinence due to poor knowledge about the hygienic practices and about the medical treatment.

Regarding Number of children, In experimental group, 4(13.3%) had one child, 10(33.3%) had two children, 5(16.7%) had more than two children,11(36.7%) came under the category of not applicable; In control group 7(23.3%) had one child, 7(23.3%) had two children,6(20%) had more than two children,10(33.4%) came under the category of not applicable due to death of spouse at early age and most of the women were unmarried. These findings are consistent with the study findings of **Agrawal.et.al., (2007)** who reported that parity of 4 and above increases the risk of urinary incontinence.

THE FINDINGS OF THE STUDY ARE DISCUSSED ACCORDING TO THE OBJECTIVES AS FOLLOWS;

1. To assess the pre test and post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group.
2. To compare the pre test and post test level of uro genital distress among women with urinary incontinence in experimental group.
3. To compare the pre test and post test level of quality of life among women with

urinary incontinence in experimental group.

4. To find the effectiveness of bladder retraining programme on level of uro genital distress among women with urinary incontinence between experimental and control group.
5. To find the effectiveness of bladder retraining programme on level of quality of life among women with urinary incontinence between experimental and control group.
6. To find the relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.
7. To find the association between the post test level of uro genital distress among women with urinary incontinence and their selected demographic variables in experimental group.
8. To find the association between the post test level of quality of life among women with urinary incontinence and their selected demographic variables in experimental group.

OBJECTIVE 1

To assess the pre test and post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group and control group.

Among women with urinary incontinence in pre test of experimental group, 3(76.7%) were slightly distressed, 7(23.3%) were moderately distressed. In control group 3(10%) were not at all distressed, 17(56.7%) were slightly distressed, 8(26.7%) were moderately distressed and 2(6.6%) were greatly distressed; In post test of uro genital distress among experimental group 26(86.7%)were not at all distressed, 4(13.3%) were slightly distressed ; among control group10(33.3%) were slightly distressed, 18(60%) were moderately distressed , 2(6.7%) were greatly distressed.

Among women with urinary incontinence in pre test of experimental group 4(13.3%) had highly satisfied quality of life, 20(66.7%) had moderately satisfied quality of life, 6(20%) had less satisfied quality of life; Among pre test of control group 7(23.3%) had highly satisfied quality of life, 20 (66.7%) had moderately satisfied quality of life, 3(10%) had less satisfied quality of life. In the post test of

quality of life scores among experimental group, 27(90%) had highly satisfied quality of life ,3(10%) had moderately satisfied quality of life .Among control group, 27(90%) had moderately satisfied quality of life, 3(10%) had less satisfied quality of life.

This study was consistent with the study findings of **Sonja karon., (2005)** who reported that women with urinary incontinence had increased scores of uro genital distress and quality of life scores.

OBJECTIVE 2:

To compare the pre test and post test level of uro genital distress among women with urinary incontinence in experimental group.

The data analysis showed that mean pre test and post test scores of uro genital distress among women with urinary incontinence in experimental group were 24.2(SD$\pm$7.224) and 8.16(SD$\pm$5.347) respectively. The mean difference was 16.04. The 't' value was 15.4 which was significant at $P<0.05$ level which showed that Bladder retraining programme was effective in reducing the uro genital distress among women with urinary incontinence.

This study was consistent with the study findings of **Thomas.et.al., (2014)**who reported that the level of uro genital distress was significantly lower in the experimental group than in the control group at (paired t test of 3.686) at P=0.01 level of significance.

Therefore the research hypothesis H_1 that is the mean post test level of uro genital distress score is significantly lower than the mean pre test level of uro genital distress scores in experimental group was accepted.

OBJECTIVE 3:

To compare the pre test and post test level of quality of life among women with

urinary incontinence in experimental group.

The data analysis showed that the mean pre test and post test score of quality of life among women with urinary incontinence in experimental group were 449.5(SD±138.1) and 173.42(SD± 100.6)respectively. The mean difference was 276.08. The 't' value was 13.83 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in improving the quality of life among women with urinary incontinence.

This study was consistent with the study findings of **Mary.P.Galea., (2006)**who reported that the level of quality of life was highly satisfied significantly in the experimental group than the control group .

Therefore the research hypothesis H_2 that is the mean post test level of quality of life score is highly satisfied significantly than the mean pre test level of quality of life scores in experimental group was accepted.

OBJECTIVE 4:

To find the effectiveness of bladder retraining programme on level of uro genital distress among women with urinary incontinence between experimental and control group.

The data analysis showed that the mean post test scores of uro genital distress among women with urinary incontinence in experimental and control group were 8.16(SD± 5.347) and 30.3 (SD± 7.655) respectively and the mean difference was 22.14. The independent't' value was 13.97, which was significant at P<0.05 level. This study was consistent with the study findings of **Heena.A.Bhatt.et.al., (2013)** who reported that after intervention using bladder retraining programme such as pelvic floor muscle exercise .There was a significant reduction found in the uro genital distress caused by severe stress urinary incontinence. There was a significant difference found in the mean of the pelvic floor muscle strength (t=3.684, P=0.0016) before and after treatment with Pelvic floor muscle exercise.

Therefore the research hypothesis H_3 that the mean post test level of uro genital distress scores in experimental group is significantly lower than the mean post test level of uro genital distress scores in control group was accepted.

OBJECTIVE 5:

To find the effectiveness of bladder retraining programme on level of quality of life among women with urinary incontinence between experimental and control group.

The data analysis showed that mean post test scores of quality of life among women with urinary incontinence in experimental and control group were 173.42(SD $\pm$100.6) and 491.7 (SD$\pm$101.7) respectively. The mean difference was 318.28. The independent't' value was 13.1 which was significant at $P<0.05$ level. This study was consistent with the study findings of **Heena. A. Bhatt.et.al., (2013)** who reported that there was a significant difference found in the mean of the quality of life score ($t=3.833$, $P=0.011$) before and after treatment which showed that there was a significant improvement in quality of life after intervention.

Therefore the research hypothesis H_4 that the mean post test level of quality of life scores in experimental group is highly satisfied significantly than the mean post test level of quality of life scores in control group was accepted.

OBJECTIVE 6:

To find the relationship between the post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group.

The data analysis showed that mean post test scores of uro genital distress and quality of life among women with urinary incontinence in experimental group were 8.16 (SD$\pm$ 5.347) and173.42 (SD $\pm$ 100.6); The mean difference was 165.26 respectively.

The ‘r’ value was 0.74 which showed that there is a positive relationship between uro genital distress scores and quality of life among women with urinary incontinence.

This study was consistent with the study findings of **Karen Mgil.et.al., (2009)**who reported that the correlation coefficient for the incontinence impact questionnaire and uro genital distress revealed that there was a positive relationship between the post test scores of uro genital distress and quality of life.

Therefore the research hypothesis H_5 that there is significant relationship between the mean post test level of uro genital distress and quality of life among women with urinary incontinence in experimental group was accepted.

OBJECTIVE 7:

To find the association between the post test level of uro genital distress among women with urinary incontinence and their selected demographic variables in experimental group.

Chi Square values were calculated to find the association between post test level of uro genital distress scores among women with urinary incontinence. The findings revealed that there was no significant association with demographic variables in experimental group at $P<0.05$ level of significance.

This study was consistent with the study finding of **Yelana.et.al., (2014)** who reported that there was no significant association with uro genital distress with selected demographic variables.

Therefore the research hypothesis H_6 that there is significant association between the post test level of uro genital distress scores among women with urinary incontinence and their selected demographic variables in experimental group was rejected.

OBJECTIVE 8:

To find the association between the post test level of quality of life among women with urinary incontinence and their selected demographic variables in experimental group.

Chi Square values were calculated to find the association between post test level of quality of life scores among women with urinary incontinence. The findings revealed that there was no significant association with demographic variables in experimental group at $P<0.05$ level of significance.

This study was consistent with the study findings of **Yelana.et.al., (2014)** who reported that there was no significant association between the quality of life scores with selected demographic variables.

Therefore the research hypothesis H_7 that there is significant association between the post test level of quality of life scores among women with urinary incontinence and their selected demographic variables in experimental group was rejected.

CHAPTER – VI
SUMMARY, CONCLUSION, IMPLICATIONS, RECOMMENDATION AND LIMITATIONS

This chapter is discussed under 5 headings

1. Summary
2. Conclusion
3. Implications
4. Recommendation
5. Limitation

SUMMARY OF THE STUDY

The aim of this present study was to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore. The design used for the present study was Quasi experimental non equivalent pre test and post test control group design. The conceptual frame work was based on modified "King's Goal Attainment Theory (1981)".Sample size was 60 out of which 30 were in experimental group and 30 were in control group. Non probability purposive sampling method was used to select the samples. The tool used for this study was Uro genital distress inventory to assess the level of uro genital distress and King's Health questionnaire to assess the level of quality of life before and after intervention.

On 1st day, screening was done by using revised urinary incontinence scale and selected 30 samples for the experimental group. Demographic variables were collected by interview and then the pre test was conducted to the participants by using urogenital distress inventory and king's health questionnaire in experimental group. On 3rd day Bladder retraining programme which includes Kegel exercises such as elevator, quickies and long haul was taught to the participants individually by the researcher and made them to do the exercises for 15 minutes which was carried out in the morning and evening for a period of 30 days to enhance the bladder control. After the intervention post test was conducted on the 30th day to assess the reduction in uro genital distress and improvement in quality of life. For the control group , on the 2nd day , screening was done by using revised urinary incontinence scale, demographic variables was collected by interview and then pre test was conducted to the participants by using uro genital distress inventory and king's health questionnaire. On the 31st day post test was conducted by using uro genital distress inventory and king's health questionnaire. The collected data were analyzed and tabulated using descriptive and inferential statistics.

MAJOR FINDINGS OF THE STUDY

The major findings are,

- In experimental group, majority 25(83.3%) belonged to the age group of 66-70 years;5(16.7%) belonged to the age group of 61-65 years; In control group, majority 19(63.3%) belonged to the age group of 66-70 years,9(30%) belong to the age group of 61-65 years;2(6.7%) belonged to the age group of 55-60 years.
- In experimental group, majority 21(70%) were Hindus; 3(10%) were Muslims, 6(20%) were Christians; In control group, majority 19(63.3%) were Hindus, 1(3.3%) Muslim, 10(33.4%) were Christians.
- In experimental group, majority 24(80%) were widow; 4 (3.3%) were single, 2(6.7%) were married; In control group, majority 23(76.7%) were widow; 3(10%) were single,4(13.3%) were married.
- In experimental group, majority 21(70%) were illiterate; 7(23.3%) had primary education, 2(6.7%) had secondary education; In control group, majority 14(46.6%) were illiterate, 10(33.4%) had primary education and 6(20%) had

secondary education.

- In experimental group, 4(13.3%) had one child, 10 (33.3%) had two children, 5(16.7%) had more than two children, 11(36.7%) came under the category of not applicable; In control group 7(23.3%) had one child, 7(23.3%) had two children,6(20%) had more than two children, 10(33.4%) came under the category of not applicable due to death of their spouse at earlier age and most of the women were not married.
    - The mean pre test and post test scores of uro genital distress among women with urinary incontinence in experimental group were 24.2 (SD±7.224) and 8.16(SD±5.347) respectively. The mean difference was 16.04. The 't' value was 15.4 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in reducing the uro genital distress among women with urinary incontinence.
    - The mean pre test and post test score of quality of life among women with urinary incontinence in experimental group were 449.5(SD±138.1) and 173.42(SD± 100.6) respectively. The mean difference was 276.08. The 't' value was 13.83 which was significant at P<0.05 level which showed that Bladder retraining programme was effective in improving the quality of life among women with urinary incontinence.
    - The mean post test scores of uro genital distress among women with urinary incontinence in experimental and control group were 8.16(SD± 5.347) and 30.3 (SD±7.655) respectively and the mean difference was 22.14. The independent't' value was 13.97, which was significant at P<0.05 level.
    - The mean post test scores of quality of life among women with urinary incontinence in experimental and control group were 173.42(SD± 100.6) and 491.7(SD± 100.7) respectively. The mean difference was 318.28. The independent't' value was 13.1 which was significant at P<0.05 level.
    - The mean post test scores of uro genital distress and quality of life among women with urinary incontinence in experimental group were 8.16 (SD ± 5.347) and 173.42 (SD ± 100.6); The mean difference was 165.26 respectively. The 'r' value was 0.74 which showed that there was a positive relationship between uro genital distress scores and quality of life

scores among women with urinary incontinence.

- The association between post test level of uro genital distress scores among women with urinary incontinence revealed that there was no significant association with demographic variables in experimental group at P<0.05 level of significance.
- The association between post test level of quality of life scores among women with urinary incontinence revealed that there was no significant association with demographic variables in experimental group at P<0.05 level of significance.

CONCLUSION

The present study was conducted to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at Coimbatore. The Independent't' value for level of uro genital distress 13.97 which was significant at $P < 0.05$ level .The Independent 't' value for level of quality of life 13.1 which was significant at $P < 0.05$ level. The results of the study concluded that bladder retraining programme was effective in reducing uro genital distress and improving the quality of life among women with urinary incontinence.

IMPLICATIONS

The findings of the study have certain important implication for nursing service, nursing education, nursing administration, and nursing research.

Nursing Service

- ♣ The nurse can organize in-service education about the non pharmacological measures used in treating women with urinary incontinence.
- ♣ Nurse as the change agent, can introduce the various measures for the reduction of uro genital distress and improving quality of life among women with urinary incontinence who were institutionalized in the old age homes.
- ♣ Nursing service department must arrange health education for the women regarding bladder retraining programme to strengthen the pelvic floor muscles

and to manage urinary incontinence.

Nursing Education

- ♣ The nurse educator can orient the students with alternative therapies in reducing the level of uro genital distress and improving the quality of life among women with urinary incontinence.
- ♣ Nurse Educators should motivate the students to do mini projects on techniques to reduce uro genital distress among women with urinary incontinence.
- ♣ Nurse educators must conduct workshops/ seminars to update the knowledge of students and to promote practicing alternative therapies among women with urinary incontinence.
- ♣ The nurse educator can include bladder retraining programme as a mean of non pharmacological therapy in the curriculum, which can be adopted by the students and the nursing personnel.

Nursing Administration

- ♣ Nurse administrator can arrange continuing education programmes regarding promoting optimal wellbeing of women living with urinary incontinence.
- ♣ Nurse administrator can organize conferences and enhance the knowledge and practice of alternative therapies among women with urinary incontinence in reducing uro genital distress and improving quality of life.
- ♣ Nurse administrator must prepare and distribute information booklet about bladder retraining programme to the women with urinary incontinence.
- ♣ Nurse administrator should conduct in-service education to disseminate the research findings through continuous nursing education to the nurses.
- ♣ Pamphlets, leaflets about bladder retraining programme can be made available to nursing staff in the urology ward and to nurse educators in nursing educational institution.

Nursing Research

- ♣ The study findings can be a baseline for further studies to build upon for improving the body of knowledge in nursing.
- ♣ The study findings should be effectively utilized by the emerging researchers to conduct further studies.

RECOMMENDATION

Based on the findings the following recommendations are stated,

- Similar study can be replicated in a larger samples thereby findings can be generalized to a large population.
- Comparative study can be done between the effectiveness of various non pharmacological measures in reducing uro genital distress and improving quality of life.
- Longitudinal study can be done between the effectiveness of bladder retraining programme among women with urinary incontinence.
- A study can be done by maximizing the time and duration of bladder retraining programme among women with urinary incontinence.

LIMITATION

- ♣ The intervention would be more effective if it is extended for a period of 8 weeks.

BIBLIOGRAPHY

BOOK REFERENCES

1. Arun Nagrath et.al. (2003)***Progress in obstetrics and gynecology***.(1st ed.).New Delhi: Jaypee brothers.Pp.284-285.
2. Basavanthappa, B.T., (2007).***Nursing Theories***. (1sted.). New Delhi: Jaypee brothers. Pp. 68-72.
3. Basavanthappa, B.T.,(2003).***Medical Surgical Nursing***.(1st ed.).New Delhi: Jaypee brothers.Pp.733-736.
4. Black.M.Joyce (2001). ***Medical Surgical Nursing.***(6thed.).Philadelphia: W.B. Saunders Co. Pp.786-789.
5. Brunner et.al (2010). ***Textbook of Medical Surgical Nursing.*** (10thed.).Philadelphia: Lippincott Williams Wilkins. Pp. 1275-1277.
6. Charlotte Eliopoulos (1997). ***Gerontological Nursing***. (4th ed).New Delhi: Lippincott.Pp.333-334.
7. Carolyn Kinster (1996).***Therapeutic Exercise Foundations and techniques***. (3rd ed.).New Delhi: Jaypee Brothers.Pp.615-616.
8. Jacqueline et.al (2008). ***Davis Guide to clinical Nursing skills.*** **(**1sted.). Philadelphia F.A.Davis company.Pp.388.
9. Lewis et.al (2011). ***Medical Surgical Nursing.*** (7thed.), Missouri: Mosby Publishers. Pp. 1191-1193.
10. Linda et.al (1999). ***Understanding Medical Surgical Nursing*** (1st ed.) .USA: F.A. Davis. Pp. 812-820.
11. Lippincott (2010).***Mannual of Nursing Practice***.(9th ed.).Philadelphia: William and Wilkin publishers.Pp.813.
12. Lynna.Y.Littleton (2007).***Maternity Nursing Care.(***1st ed.).Australia: Thompson publications, Pp. 182.
13. Manjit Kaur (2006).***Text Book of Medical Surgical Nursing***.(2nd ed.) Jalandhar: Vikas company.Pp.1089-1191.
14. Potter and Perry (2007).***Basic Nursing Essentials for practice***. (6thed.). Philadelphia: W.B.Saunders co. Pp. 916-917.
15. Sue.c.DeLaune et.al (2002).***Fundamental of Nursing***. (2nd ed.). U.S.A: Delmar publishers.Pp.813.

16. Shafers (1995). ***Medical Surgical Nursing.*** (7th ed.).USA: Mosby publishers. Pp. 197-204.
17. Sundar Rao et.al (2006).***Introduction To Biostatistics and Research Methods.*** (4th ed.).New Delhi: Prentice- Hall.Pp.94-107.
18. Suresh K Sharma (2012).***Nursing research and statistics.*** (1st ed.). India: Elsevier publishers .Pp. 331-349.
19. Shree comer (2005)***. Geriatric Nursing.*** (3rded.).Canada: Delmar's publishers.Pp.184-187.
20. Padubidi U.G (2003).***Gynecology.*** (1sted.).New Delhi: Elsevier publishers.Pp.69-70.
21. Reeder (1997).***Maternity Nursing family, newborn and women's Health care.*** (8thed.)California: Lippincott. Pp. 259-260.
22. Watson's(1997).***Medical surgical Nursing.***(4thed.).London: British Government.Pp.650-665.

JOURNALS

23. Agrawal et.al.(2007).Incidence and epidemiological factors of urinary incontinence among women. ***Indian Journal of obstetrics and gynecology***.Pp.155-157.
24. Anthony et.al.(1999).Observed patient compliance with a structured outpatient bladder retraining programme. ***American Journal of obstetrics.***Pp.1392-1394.
25. .Bailey et.al.(2010).The prevalence and effects of urinary incontinence in women. ***African Journal of Public Health Care and Family Medicine***.Pp.1.
26. .Heena et.al.(2007)Effectiveness of pelvic floor muscle exercise. ***International Journal health science and research.***Pp.3-6.
27. Hunskaar.T.Osthy(1998).Epidemiology of urinary incontinence. ***Norwegian Journal of Epidemiology.***Pp.177-182.
28. Hyunn.soo.et.al (2005).Effectiveness of behavioral intervention programme. ***Journal of Korean Academy of Nursing***.Pp.1476-1484.
29. Markland et.al(2008).Prevalence and trends of urinary incontinence in adults in united states. ***Journal of urology.***Pp.186-189.
30. Patterson.A(2011).Behaviour change to treat over active bladder. ***Nursing times.***Pp.16-19.
31. Sherina et.al.(2010).The prevalence of urinary incontinence.***The Malaysian Journal of MedicalSciences.***Pp-18-23.
32. Singh et.al.(2009).Prevalence and incidence of urinary incontinence. ***Indian Journal of Physiotherapy and occupational therapy.***Pp.9-12.
33. Wang et.al.(2014).Prevalence and risk factors of urinary incontinence among

Chinese women. ***International Journal of Clinical and Experimental Medicine***.Pp.686-696.

NET REFERENCES

34. http://Newzealand continence Association
35. http://www.the hindu.com/today's paper/tp-national/tp-tamilnadu/t3-pc-of-women suffer-urinary incontinence/article 3117912.
36. http://en.wikipedia.org/w/index,php/title=kegel exercise &old id=609697554.
37. http://www.physiotheraphy-treatment.com/incontinence.
38. http://Mayo foundation for medical education and research.
39. http://urinary incontinence diagnosis.
40. http://pharmacological treatment of urinary incontinence.
41. http://quality of life-king's health questionnaire.
42. http://en Department of social medicine and health care policy.
43. http://www.biomed central.com/1471-2318/12/51 BMC Geriatrics 2012,12:51 doi:10.1186/1471-2318-12-51.
44. http://www.bladder and bowel foundation.org.
45. http://www.iuga.org.2011.
46. http://evaluation of bladder training programme.
47. http://patient.co.UK trusted medical information and support.
48. http://National Association for incontinence, Charleston, south Carolina USA 2014.
49. http://bladder retraining 2005-2014 web med, LLC
50. http://en.wikiquote.org/wiki/exercise
51. http://www.med reviews.com.department of urology, new York university, school of medicine.
52. http://www.nichd.nih.gov/research/supported/pages/pelvicfloor.aspx..http://Adv.stud.Med.2003:3(8E):S824-S 828(Advanced studies in medicine)
53. http://The Authors. (2006)Journal compilation. Blackwell publishing ltd.
54. http://The university of Melbourne, 25162, September 13, 2005 Australia: National Health and Medical Research council.
55. http://The journal of female urinary incontinence.sao Paulo state university-Brazil.
56. http://Rev urol, 2004;6(suppl 3) S29-S47.
57. http://National collaborating centre for women's and children's health, 2006, RCOG press, London.
58. http://Continence foundation of Australia 2014/ABN: 84007325313.
59. http://The university of California, San Francisco, CA 94143,(415)476-9000 copyright @ 2009,The regents of the University of California.
60. http://Interstitial cystitis Association 1760, old meadow road, suite 500, M

clean, VA22102. http://Shumaker (1995) The incontinence program for Women Research Group. 14(2) Pp-131-139.
61. http://Validation and clinical Translation of the Revised continence and patient satisfaction tools (2011) centre for Health service Development. University of Wollongong.
62. http://National kidney and urologic Diseases information clearing house, U.S. Department of health and human services.
63. http://Jonas: Mosby's Dictionary of complementary and Alternative medicine©2005.elsevier.
64. http://Miller-keane encyclopedia and dictionary of medicine, Nursing and allied health, 7th ed@2003 by Saunders an imprint of Elsevier. Inc. all rights reserved.
65. http://Biomedcentral.com/bmcwomens health/article/10.1186/1472/6874/13/16.
66. http://Obstet Gynecol 2006, 107(6):1253-1260.pubmed abstract.
67. http://European Association of urology 2013.guidelines on urinary incontinence.
68. http://Alberta Health-health benefits and compliance urinary incontinence definitions-2013-government of Alberta.
69. http://Baillieres Best pract Res clin obstet Gyneacol, 2000.Apr:14(2)207-26.
70. http://Urology care foundation .The official foundation of the American urological Association.
71. http://Peter chen.MD, Department of obstetrics and gynecology, university of Pennsylvania medical centre, Philadelphia, 2008.
72. http://URAC: Accredited Health Website,Newsletters,Dictionary physician Directory
73. http:// 2005-2014.urodynamics and bladder retraining, Bedford Hospital, NHS Trust, Date of publication June 2010; Date of review 2012.
74. http://Indian j urol.2013.Jan:29(1):31-6.doi-10.4103/0970-1591.109981.
75. .http://The National Medical Journal of India, vol., 15, No.1, 2002, Medico social dimensions of menopause.
76. http://.Brubaker L.Patient information: pelvic floor muscle exercises. Accessed June 19, 2012.
77. http://U.S.National Library of Medicine, 8600 Rock ville pike, Bethesda, MD20894.
78. .http://Prevalence of over active bladder in Spain: a population based study[Arch Esp urol.2005]
79. http://Int.Urogynecol j pelvic floor dysfunction, 1997, 8(6):321-31.
80. http://The New Indian Express, Sunday, june15, 2014;12;09 am.

81. http://Curr.urolRep.2011.oct:12(5):370-6.doi:10.100715 11934-011-0206-0
82. http://European Association of Urology, published by Elsevier B.V.(2013).
83. http://Rabin (2001) Prevalence of urinary incontinence among women Department of Family Medicine and Gynaecology and obstetrics, medical center.(Beilinson campus), Petah Tiquva ans sackler faculty of Medicine.Tel Aviv University, Israel.
84. http://Kegel Exercises Banish mild urinary incontinence, Dr.Linda Mundorff on June11, 2010.
85. http://Prevalence and risk factors of urinary incontinence in Indian women. A hospital based survey. Indian j urol.2013, Jan-Mar; 29(11):31-36.
86. http://International Journal of Nursing studies 40(2008)45-50.
87. http://Evid Based Nurs 1999:2:85 doi:10.1136/ebn:2.385.
88. http://Urologic Nursing/May-June 2012/ volume 32 Number 3/ Epub Ahead of print.
89. http://Arch Gerontol Geriatr.2002 Nov-Dec 35(3):237-44.
90. http://American college of obstetrics and gynecologists, vol, 109 No.3.March 2007,(72)-7.
91. http://The Indian Journal of Occpational Therapy, volu.XLII.No.1 (January 2010-April 2010).

APPENDIX-B

LETTER SEEKING EXPERT'S OPINION FOR CONTENT VALIDITY

From

Ms.J.Devaponmalar,
M.sc (Nursing) II Year,
Bishop's College of Nursing,
Dharapuram.

To

Respected Madam / Sir,

Sub: Requisition for content validity of tool.

I am doing M. Sc (Nursing) II year in Bishop's College of Nursing, Dharapuram under The Tamil Nadu Dr. M.G.R. Medical university, Guindy, Chennai. As a partial fulfillment of my M. Sc (Nursing) Degree Programme, I am conducting a research on, **"A study to assess the effectiveness of bladder retraining programme on reduction of uro genital distress and improving quality of life among women with urinary incontinence in selected old age homes at coimbatore".** A tool has been developed for the research study. I am sending the above stated for your expert and valuable opinion. I will be thankful for your kind consideration. Kindly return it to the undersigned.

Thanking you,

Yours faithfully,
(J.Devaponmalar)

Enclosure:

- Certificate of content validity
- Statement of problem, objectives, operational definition, hypotheses
- Description of the tool and tool for data collection
- Self addressed envelope

APPENDIX-C

MEDICAL SURGICAL NURSING

LIST OF EXPERTS OF VALIDATION

1) Dr. Gowrishankar Senthilvel.,

M.S. (Gen.Surg).,M.ch.(uro).,

Consultant Urologist & Andrologist,

Senthil Multi Speciality Hospital,
Erode.

2) Mrs. S.Lavanya., M.Sc (N).,
HOD of Medical Surgical Nursing,
Nanda College of Nursing,
Erode.

3) Mrs.Shoba.E.Merina., M.Sc (N).,
Reader,
HOD of Medical Surgical Nursing,
Shakthi College Of Nursing,
Oddanchatram. Dindigul.

4) Mrs.Ouvai.R., M. Sc (N).,
Asst Professor,
Medical Surgical Nursing Department,
Shivparvathi Mandradiyar Institute of Health Science,
Palayakottai. Erode.

5) Mrs. M. SudhaDevi, M.Sc (N)
Asst Professor,
Medical Surgical Nursing Department
Vellalar College of Nursing.
Thindal. Erode.

APPENDIX-D

CERTIFICATE FOR VALIDITY

This is to certify that the standardised tool on ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' has been validated by me and found appropriate with mentioned suggestions.

Signature :

Name : Dr. Gowrishankar
MS (Gen)., M.ch (uro)

Designation : Chief urologist & Infertility consultant.

College :

CERTIFICATE FOR VALIDITY

This is to certify that the standardised tool on ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' has been validated by me and found appropriate with mentioned suggestions.

Signature : S. Lavanya

H.O.D.
Dept. of Medical Surgical Nursing,
Nandha College of Nursing,
ERODE - 638 052.

Name : S. LAVANYA

Designation : HOD, Medical - Surgical Nursing

College : NANDHA COLLEGE OF NURSING, ERODE

CERTIFICATE FOR VALIDITY

This is to certify that the standardised tool on ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' has been validated by me and found appropriate with mentioned suggestions.

Signature : J. Shoba

Name : MRS. SHOBA. E. MERINA

Designation : Mrs. SHOBA. E. MERINA, M.Sc(N),
READER
HOD of Medical Surgical Nursing
Sakthi College of Nursing
Odanilaiyam, Dharapuram - Dist

College :

CERTIFICATE FOR VALIDITY

This is to certify that the standardised tool on ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' has been validated by me and found appropriate with mentioned suggestions.

Signature : Ms. Ouvai. R.

Name : Ms. Ouvai. R.

Designation : Asst. Professor.

College : Shivparvathi Nandradhar Institute of Health Science - Palayakottai.

CERTIFICATE FOR VALIDITY

This is to certify that the standardized tool on **"A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF UROGENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE"** has been validated by me and found appropriate with mentioned suggestions.

SIGNATURE :

NAME : Mrs. M. SUDHA DEVI

DESIGNATION : ASSIST. PROFESSOR.

COLLEGE : VELLALAR COLLEGE OF NURSING, THINDAL, ERODE.

Vellalar College of Nursing
Maruthi Nagar
Thinda
Erode - 638 012

APPENDIX - E

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation work , ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' done by Ms. J.Devaponmalar, II Year ,M.sc.[N] Student of Bishop's college of Nursing , Dharapuram is edited for English language appropriateness by

SIGNATURE : P. Sampath

NAME : P. SAMPATH

DATE :

ADDRESS : P. SAMPATH, M.A., M.Phil., M.Ed.,
Lecturer in English,
Maharani Teacher Training Institute,
Dharapuram.

APPENDIX - F

CERTIFICATE OF TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation work , ''A STUDY TO ASSESS THE EFFECTIVENESS OF BLADDER RETRAINING PROGRAMME ON REDUCTION OF URO GENITAL DISTRESS AND IMPROVING QUALITY OF LIFE AMONG WOMEN WITH URINARY INCONTINENCE IN SELECTED OLD AGE HOMES AT COIMBATORE'' done by Ms. J.Devaponmalar, II Year ,M.sc.[N] Student of Bishop's college of Nursing , Dharapuram is edited for Tamil language appropriateness by

SIGNATURE : ஒ.மு. செந்தில் குமார்

D.M.SENTHIL KUMAR, M.A.,B.Ed.,M.Phil,
Guest Lecturer,
Department of Tamil,
Alagappa University Study Centre,
DHARAPURAM- 638656

NAME : மு. மே. செந்தில் குமார்

DATE :

ADDRESS :

APPENDIX - G
TOOL
PART- I

DEMOGRAPHIC VARIABLES:

1. Age

a) 55-60years
b) 61-65 years
c) 66-70 years

2. Religion
a) Hindu
b) Muslim
c) Christian
3. Marital status
a) Married
b) Single
c) Widow
4. Education
a) Illiterate
b) Primary Education
c) Secondary Education
5. Number of children
a) One
b) Two
c) More than two
d) Not applicable

PART-II
The Revised Urinary Incontinence Scale (RUIS)

Please **[ ]** the following questions depends on your urinary incontinence.

- Urine leakage related to the feeling of urgency

  [ ] Not at all - 0

  [ ] slightly -1

  [ ] moderately -2

  [ ] greatly -3

- Urine leakage related to physical activity, coughing or sneezing

  [ ] Not at all - 0

  [ ] slightly -1

  [ ] moderately -2

  [ ] greatly -3

- Small amount of urine leakage [drops]

  [ ] Not at all - 0

  [ ] slightly -1

  [ ] moderately -2

  [ ] greatly -3

- How often do you experience urine leakage?
  [ ] Never -0

[ ] Less than once a month -1
[ ] A few times a month -2
[ ] A few times a week -3
[ ] Every day and/ or night -4

- How much urine do you lose each time?
  [ ] None -0
  [ ] Drops -1
  [ ] Small splashes -2
  [ ] More -3

SCORING PROCEDURE:

Revised urinary incontinence scale was used to assess the degree of urinary incontinence. Total score was 16.

The score was interpreted as follows,

S.NO.	DEGREE OF URINARY INCONTINENCE	SCORE	PERCENTAGE (%)
1.	Very mild	0-3	0-24%
2.	Mild	4-8	25-50%
3.	Moderate	9-12	51-75%
4.	Severe	13-16	76-100%

PART-III
Uro genital Distress Inventory

The following symptoms have been described by women who experience accidental urine loss and/or prolapse. Please indicate which symptoms you are now experiencing, and how bothersome they are for you. Be sure to answer all items.

	0 **Not at all**	**1** **slightly**	**2** **moderately**	**3** **greatly**
1.Do you experience frequent urination? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
2. Do you experience a strong feeling of urgency to empty your bladder? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
3. Do you experience urine leakage related to the feeling of urgency? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
4. Do you experience urine leakage related to physical activity, coughing or sneezing? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
5. Do you experience general urine leakage not related to urgency or activity? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
6. Do you experience small amounts of urine leakage (that is, drops)? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]

	0 **Not at all**	**1** **slightly**	**2** **moderately**	**3** **greatly**
7. Do you experience large amounts of urine leakage? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
8. Do you experience night time urination? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
9. Do you experience bed wetting? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
10. Do you experience difficulty emptying your bladder? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
11. Do you experience a feeling of incomplete Bladder emptying? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
12. Do you experience lower abdominal pressure? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
13. Do you experience pain when urinating? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
14. Do you experience pain in the	[ ]	[ ]	[ ]	[ ]

lower abdominal or genital area? If yes, how much does it bother you?

15. Do you experience heaviness or dullness in the pelvic area? If yes, how much does it bother you? [ ] [ ] [ ] [ ]

	0	**1**	**2**	**3**
	Not at all	**slightly**	**moderately**	**greatly**
16. Do you experience a feeling of bulging or protrusion in the Vaginal area? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
17. Do you experience pelvic discomfort When standing or physically exerting yourself? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]
18. Do you have to push on the vaginal walls to have a bowel movement? If yes, how much does it bother you?	[ ]	[ ]	[ ]	[ ]

SCORING PROCEDURE:

Urogenital distress inventory was used to assess the degree of uro genital distress.

The score was interpreted as follows,

It has got 18 questions. Total score was 54. It was rated as below,

S.NO.	**DEGREE OF URO GENITAL DISTRESS**	**SCORE**	**PERCENTAGE (%)**
1.	Not at all distressed	0-14	0-26%
2.	Slightly distressed	15-28	27-52%
3.	Moderately distressed	29-42	53-78%
4.	Greatly distressed	43-54	79-100%

PART IV
KING'S HEALTH QUESTIONNAIRE

Please [ ] tick one answer

- **How would you describe your health at the present?**

Very good [ ]

Good [ ]
Fair [ ]
Poor [ ]
Very poor [ ]

2. How much do you think your bladder problem affects your life?

Not at all [ ]
A little [ ]
Moderately [ ]
A lot [ ]

Below are some daily activities that can be affected by bladder problems. How much does your bladder problem affect you?
Answer every question. Simply tick the box that applies to you.

	1	**2**	**3**	**4**
3. ROLE LIMITATIONS	**Not at all**	**Slightly**	**Moderately**	**A lot**
A. Does your bladder problem affect Your Household tasks ? (Cleaning, shopping etc)	[ ]	[ ]	[ ]	[ ]
B. Does your bladder problem affect your job, or your normal daily activities outside the home?	[ ]	[ ]	[ ]	[ ]

	1	**2**	**3**	**4**
4.PHYSICAL/SOCIAL LIMITATION	**Not at all**	**Slightly**	**Moderately**	**A lot**
A . Does your bladder problem affect your physical activities (e.g. going for a walk, running, Sport, gym etc)?	[ ]	[ ]	[ ]	[ ]
B. Does your bladder problem affect your ability to travel?	[ ]	[ ]	[ ]	[ ]
C. Does your bladder problem limit your social life?	[ ]	[ ]	[ ]	[ ]
D. Does your bladder problem limit your ability to see and visit friends?	[ ]	[ ]	[ ]	[ ]

	0	**1**	**2**	**3**	**4**
5. PERSONAL RELATIONSHIPS	Not Applicable	Not at all	Slightly	Moderately	A lot
A.Does your bladder problem affect your relationship with your partner?	[ ]	[ ]	[ ]	[ ]	[ ]
B. Does your bladder problem affect your sex life?	[ ]	[ ]	[ ]	[ ]	[ ]
C. Does your bladder problem	[ ]	[ ]	[ ]	[ ]	[ ]

affect your
family life?

	1	2	3	4
6. EMOTIONS	**Not at all**	**Slightly**	**Moderately**	**Very much**
A. Does your bladder problem make you feel depressed?	[ ]	[ ]	[ ]	[ ]
B. Does your bladder problem make you feel anxious or nervous?	[ ]	[ ]	[ ]	[ ]
C. Does your bladder problem make you feel bad about yourself?				

	1	2	3	4
7.SLEEP/ENERGY	**Never**	**Sometimes**	**Often**	**All the time**
A. Does your bladder problem affect your sleep?	[ ]	[ ]	[ ]	[ ]
B. Does your bladder problem make you feel worn out and tired ?	[ ]	[ ]	[ ]	[ ]

8.Do you do any of the following?

		If so how much?		
	1	**2**	**3**	**4**
	Never	**Sometimes**	**Often**	**All the time**
A. Wear pads to keep	[ ]	[ ]	[ ]	[ ]
B. Be careful how much fluid you drink ?	[ ]	[ ]	[ ]	[ ]
C. Change your underclothes because they get wet?	[ ]	[ ]	[ ]	[ ]
D. Worry in case you smell?	[ ]	[ ]	[ ]	[ ]

SCORING PROCEDURE:

Kings health questionnaire was used to assess the quality of life. It has 2 parts;

Part I - consists of general health perception and incontinence impact.

Part II - consists individual scores for role limitations, physical and social limitations, personal relationships, emotions, sleep/energy and severity measures. Total Score was 900.The scoring is done as follows,

The **Part 1** score is calculated using the sum of the overall scores from questions **1.** and **2.** Patient's responses to questions **1.** and **2.** are scored as follows:

Response	**Score**

Q1.(General Health perceptions)	Very good	1
	Good	2
	Fair	3
	Poor	4
	Very poor	5

Q1.Overall Score =((Score to Q1-1)/4)x100

	Response	**score**
Q2.(Incontinence impact)	Not at all	1
	A little	2
	Moderately	3
	A lot	4

Q2.Overall Score= ((Score to Q2-1)/3) x 100

PART 1 SCORE = (Q1.OVERALL SCORE) + (Q2.OVERALL SCORE)

PART 2 SCORE

The **Part 2** score is calculated using the sum of the scores from questions **3.** To**9.**

Patients responses to questions **3.** to **9**. are scored as for **Q2.,** above.

Note: For Q5., a response of ‘‘Not applicable’’ should be scored as 0 (Zero).

Question	**Conditions**	**Overall scores**
Q3.(Role limitations)		(((scores to Q3A +3B-2)/6)x100
Q4.(physical limitations)		(((scores to Q4A+4B)-2)/6x100
Q5.(social limitations)	[If 5C >/=1]	(((scores to Q4C+4D+5C)-3/9)X100
	[If 5C=0]	(((score to Q4C+4D)-2)/6)x100
Q6.(Personal relationships)	[If 5A+5B>=2]	(((scores to Q5A+5B)-2)/6x100
	[If 5A+5B=1]	(((scores to Q5A+5B)-1)/3x100
	[If 5A+5B=0]	Treat as missing value
Q7.(Emotions)		(((score to Q6A+6B+6C)-3)/9x100
Q8.(sleep/energy)		(((score to Q7A+7B)-2)/6)x100

Q9.(severity measures) (((scores to Q8A+8B+8C+8D)-4)/12)x100

PART 2 SCORE=(OVERALL SCORES:Q3+Q4+Q5+Q6+Q7+Q8+Q9.)

S.NO.	QUALITY OF LIFE	SCORE	PERCENTAGE (%)
1	Highly satisfied	0-300	0-33%
2	Moderately satisfied	301-600	34-66%
3	Less satisfied	601-900	67-100%

Lower score-better quality of life

Mapi Research Trust.,(2011)

gFjp - I

RaFwpg;Gfs;

- taJ

m) 55 - 60 taJ
M) 61 - 65 taJ
,) 66 - 70 taJ

- kjk;

m) ,e;J
M) K];yPk;
,) fpwp];jth;

- jpUkzj; jfty; :

m) jpUkzkhdth;
M) jpUkzkhfhjth;
,) tpjit

- fy;tpj;jFjp

m) gbf;fhjth;
M) Kjy; epiyf;fy;tp
,) Nky;epiyf;fy;tp

- Foe;ijfspd; vz;zpf;if

m) xd;W
M) ,uz;L
,) ,uz;bw;F Nky;
<) nghUe;jhJ

gFjp - II

jpUj;jpaikf;fg;gl;l rpWePh;f;frpT tpdhj;jhs;

fPo;f;fz;l Nfs;tpfspy; cq;fSf;F Vw;glf;$ba rpWePh;f;frpTf; Nfw;g nra;aTk; :

- mtru czh;Tld; $ba rpWePh;f;frpT

Gs;spfs;

( ) ,y;iy - 0
( ) rw;Wkpjkhd - 1
( ) kpjkhd - 2
( ) epiwa - 3

- clw;gapw;rp> ,Uky; kw;Wk; Jk;ky; Nghd;wtw;wpdhy; Vw;glf;$ba rpWePh;f;frpT

Gs;spfs;

( ) ,y;iy - 0
( ) rw;Wkpjkhd - 1
( ) kpjkhd - 2
( ) epiwa - 3

- kpf rpwpa mstpshd rpWePh;f;frpT (Jspfs;)

Gs;spfs;

( ) ,y;iy - 0

( ) rw;Wkpjkhd - 1

( ) kpjkhd - 2

( ) epiwa - 3

- vg;nghOnjy;yhk; ePq;fs; rpWePh;f;frpT Nghd;w mDgtj;ij czUfpwPh;fs; ?

Gs;spfs;

( ) vg;nghOJk; ,y;iy - 0

( ) xU khjj;jpw;F Fiwthf - 1

( ) xU khjj;jpy; rpy Neuq;fspy; - 2

( ) xU thuj;jpy; rpy Neuq;fspy; - 3

( ) jpdKk; gfYk; ,uTk; - 4

- cq;fSf;F rpWePh;f;frpT Vw;gLk;Nghnjy;yhk; vt;tsT rpWePh; ntspNaWk;>

( ) ,y;iy - 0

( ) Jspfs; - 1

( ) rpwpjsT njhpj;jy; - 2

( ) epiwa - 3

gFjp - III

- rpWePuf kw;Wk; gpwg;GWg;gpy; Vw;glf;$ba rq;Nfh[khd epiyia mwptjw;fhd Nfs;tpj;jhs;

fPNo nfhLf;fg;gl;l mwpFwpfis rpWePh;f;frpT kw;Wk; fh;g;gg;ig fPowq;Ftjpdhy; Vw;glf;$ba mDgtj;ij ngUk;ghyhd ngz;fs; tpthpj;jitapd;thapyhf Nfs;tpj;jhs; rpj;jhpf;fg;gl;Ls;sJ. ve;j mwpFwp cq;fsplk; fhzg;gLfpwJ vd;Wk; > mit vt;tsT cq;fisg; ghjpf;fpwJ vd;Wk; Fwpg;gplTk; vy;yhf; Nfs;tpfSf;Fk; jtwhky; gjpy; mspf;fTk;.

	(0)	(1)	(2)	(3)
	,y;iy	rw;W kpjkhd	kpjkhd	epiwa

- mbf;fb rpWePh;f;fopf;f

Ntz;Lk; vd;w czh;it

ePq;fs; czh;e;jpUf;fpwPh;fsh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- mtru czh;Tld; $ba

rpWePh; fopf;fNtz;Lk; vd;w

mDgtk; cq;fSf;F cz;lh ? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- ePq;fs; mtruj;Jld;

$ba rpWePh;f;frpit ( ) ( ) ( ) ( )

czh;e;;jpUf;fpwPh;fsh?

Mk; vd;why; vt;tsT ghjpg;G ?

- clw;gapw;rp> ,Uky;> Jk;ky;

fhuzkhf rpWePh;f;frpit ( ) ( ) ( ) ( )

czh;e;jpUf;fpwPh;fsh?

Mk; vd;why; vt;tsT ghjpg;G ?

- mtruj;Jld; ,y;yhJ

clw;gapw;rpapd; fhuzk;

,y;yhJ rpWePh;f;frpit ( ) ( ) ( ) ( )

czh;e;;jpUf;fpwPh;fsh?

Mk; vd;why; vt;tsT ghjpg;G?

- ePq;fs; kpfTk; rpwpjstpy;

rpWeph;f;frpit czUfpwPh;fsh?

(Jsp Nghd;W) ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- ePq;fs; kpfTk; nghpjstpy;

rpWePh;f;frpit czUfpwPh;fsh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G

- ,utpy; mbf;fb rpWePh;f;fopf;f

nry;fpwPh;fsh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- gLf;ifapy; rpWePh;f;frpT

Vw;gLfpwjh ? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- rpWePh;f;fopg;gjw;F kpfTk;

rpukg;gLfpwPh;fsh ? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- KOtJkhf rpWePh;f;fopf;fhjJ

Nghd;W czh;T cq;fSf;F

Vw;gl;Ls;sjh ? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- cq;fs; mbtapw;wpd;

mOj;jk; FiwtJ Nghd;w

czh;T Vw;gl;Ls;sjh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- rpWePh;fopf;Fk; NghJtyp

,Uf;fpwjh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- cq;fSf;F mbtapw;wpYk;

gpwg;GWg;gpYk; typ Vw;gLfpwjh? ( ) ( ) ( ) ( )

Mk; vd;why; vt;tsT ghjpg;G?

- fdj;j my;yJ Nrhh;T Nghd;w

czh;it mbtapw;Wg;gFjp
kw;Wk; gpwg;GWg;Gg; gFjpapy;
czUfpwPh;fsh ? ( ) ( ) ( ) ( )
Mk; vd;why; vt;tsT ghjpg;G?

- VjhtJ Gilg;G Nghd;w

czh;T cq;fs; gpwg;GWg;gpd;
thapyhf tUtij
czUfpwPh;fsh ? ( ) ( ) ( ) ( )
Mk; vd;why; vt;tsT ghjpg;G?

- ePq;fs; epw;Fk; NghJ my;yJ

gw;gy Ntiyfis nra;Ak;NghJ
mbtapw;Wg; gFjpapy;
rq;Nfh[khd epiyia
czUfpwPh;fsh ? ( ) ( ) ( ) ( )
Mk; vd;why; vt;tsT ghjpg;G?

- kyk; fopg;gjw;f;F ePq;fs;

kpfTk; rpukg;gLfpwPh;fsh? ( ) ( ) ( ) ( )
Mk; vd;why; vt;tsT ghjpg;G?

gFjp - IV

tho;f;ifj; juj;ij kjpg;gpl fpq;]; Rfhjhu Nfs;tpj;jhs;:
fPo;f;z;ltw;Ws; jaT $h;e;J xU gjpiy kl;Lk; nra;aTk;

- jw;NghJ cq;fs; cly; MNuhf;fpaj;ij vt;thW tpthpg;gPh;fs; ?

		Gs;spfs;
kpf ed;W	( )	1
ed;W	( )	2
Rkhh;	( )	3
Nkhrk;	( )	4
kpfTk; Nkhrk;	( )	5

- cq;fs; rpWePh;g;ig gpur;rid cq;fs; tho;f;ifia vt;tsT ghjpg;gjhf epidf;fpwPh;fs;?

  Gs;spfs;

  ve;j ghjpg;Gkpy;iy ( ) 1

  nfhQ;rk; ghjpg;G ( ) 2

  kpjkhd ghjpg;G ( ) 3

  kpFe;j ghjpg;G ( ) 4

fPo;f;fz;ltw;Ws; rpytifahd jpdrhp eltbf;iffs; cq;fs; rpWePh;g;ig gpur;ridapdhy; ghjpf;fg;glyhk;? mt;tifahd ghjpg;G vt;tsT cq;fisg; ghjpf;fpwJ?

midj;J Nfs;tpfSf;Fk; tpilaspf;fTk;> cq;fSf;Fg; nghUe;Jk; gjpy;fis ( ) nra;aTk;

(1) (2) (3) (4)

3. gq;F tuk;Gfs; ,y;iy rw;Wkpjkhd kpjkhd epiwa m) rpWeph;g;ig gpur;rid

cq;fs; tPl;Lg;gzpfisg;

ghjpf;fpwjh?

(Rj;jk; nra;jy; ( ) ( ) ( ) ( )

filj;njUTf;Fr;

nry;Yjy; Nghd;wit)

M) rpWePhg;ig gpur;rid

cq;fs; Ntiy jpdrhp

eltbf;iffs; kw;Wk; ntsp ( ) ( ) ( ) ( )

Ntiyfisg; ghjpf;fpwjh?

(1) (2) (3) (4)

- rhPu kw;Wk; r%f tuk;Gfs;

  ,y;iy rw;Wkpjkhd kpjkhd epiwa

m) rPWePh;g;igg; gpur;rid

cq;fs; rhPu
nray;ghLisg; ( ) ( ) ( ) ( )
ghjpf;fpwjh?
(v.fh. eil> XLjy;>
tpisahl;L> clw;gapw;rp
Nghd;wit)

M) rpWePh;g;igg; gpur;rid
cq;fs; gazj;ijg; ( ) ( ) ( ) ( )
ghjpf;fpwjh?

,) rpWePh;g;igg; gpur;rid
cq;fs; r%ftho;f;ifia ( ) ( ) ( ) ( )
ghjpf;fpwjh?

<) rpWePh;g;igg; gpur;rid
cq;fs; ez;gh;fis ( ) ( ) ( ) ( )
re;jpg;gjw;F jilahf
cs;sjh?

(0) (1) (2) (3) (4)

5. jdpg;gl;l cwTfs; nghUe;jhJ ,y;iy rw;W kpjkhd epiwa
kpjkhd

m) rpWePh;g;igg; gpur;rid
cq;fs; fztUld; ( ) ( ) ( ) ( ) ( )
cs;s cwitg;
ghjpf;fpwjh?

M) rpWePh;g;igg; gpur;rid

cq;fs; jhk;gj;a ( ) ( ) ( ) ( ) ( )

tho;f;ifia ghjpf;fpwjh?

,) rpWePh;g;igg; gpur;rid

cq;fs; FLk;g

tho;f;ifia ghjpf;fpwjh? ( ) ( ) ( ) ( ) ( )

(1) (2) (3) (4)

6. kdczh;tpd; tuk;Gfs;

,y;iy rw;Wkpjkhd kpjkhd epiwa

m) rpWePh;g;ig gpur;rid

cq;fSf;F kdmOj;jj;ij

cz;lhf;Ffpwjh? ( ) ( ) ( ) ( )

M) rpWePh;g;ig gpur;rid

cq;fSf;F glg;glg;ig ( ) ( ) ( ) ( )

cz;lhf;Ffpwjh?

,) rpWePh;g;ig gpur;rid

cq;fisg;gw;wp jtwhf

epidf;fr; nra;fpwjh? ( ) ( ) ( ) ( )

(1) (2) (3) (4)

7. J}f;fk; /rf;jp

ghjpg;gjpy;iy rpy mbf;fb/ vg;nghOJk;

Neuq;fspy; mt;tg;nghOJ

- rpWePh;g;igg;

gpur;rid cq;fs;

J}f;fj;ijg; ( ) ( ) ( ) ( )

ghjpf;fpwjh?

M) rpWePh;g;igg;

gpur;rid cq;fis

Njha;e;Jg;NghfTk;

Nrhh;tilaTk; ( ) ( ) ( ) ( )

nra;fpwjh?

- fPo;fz;;ltw;Ws;s VjhtJ Kiwfis filg;gpbf;fpwPh;fsh? mg;gb nad;why; vt;tsT ?
- (2) (3) (4)

  ,y;iy rpy mbf;fb/ vg;nghOJk;

  Neuq;fspy; mt;tg;nghOJ
- Jzp/gl;lia

cgNahfpf;fpwPh;fsh? ( ) ( ) ( ) ( )

M) jput nghUl;fis

cl;nfhs;Sk;NghJ

ftzkhf

,Uf;fpwPh;fsh? ( ) ( ) ( ) ( )

,) cq;fs; cs;shilfis

<ukhtjpd; %yk;

khw;WfpwPh;fsh ? ( ) ( ) ( ) ( )

<) rpWePh; kdk; ntspNa

njhpe;JtpLk; vd;W

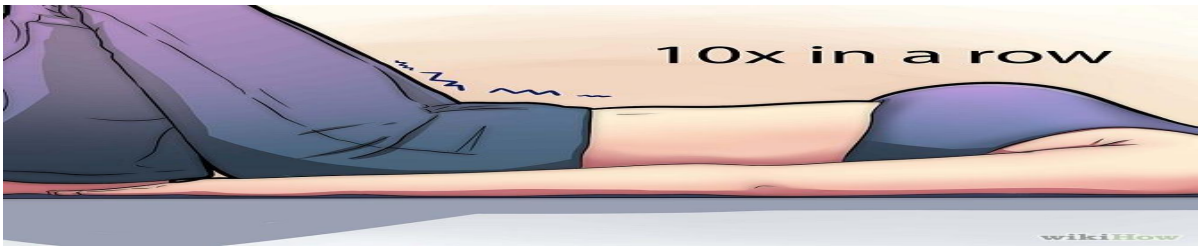
ftiyg;gLfpwPh;fsh? ( ) ( ) ( ) ( )

APPENDIX – J

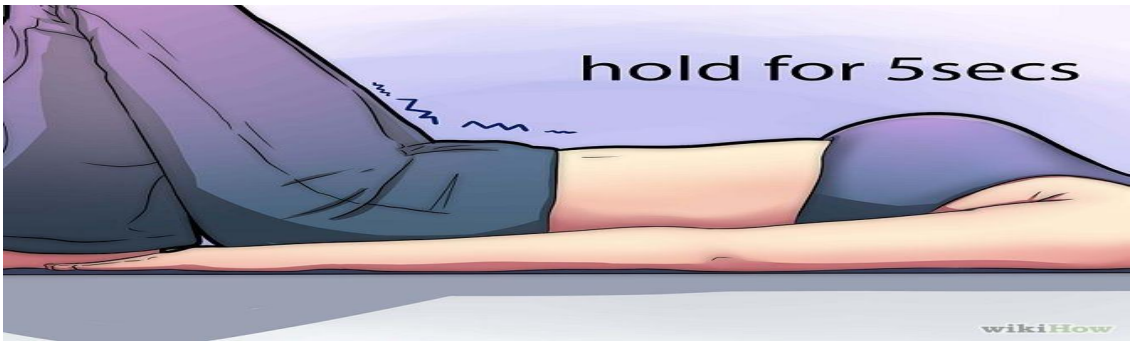
PROCEDURE

1.Elevators: Focus on the muscles of the vaginal/urethral opening .Without relaxing, try to tighten the muscles a little bit higher the opening and hold. Without relaxing, continue to tighten even higher as if trying to tighten the muscles of the bladder neck and hold. Continue for 5 minutes.

2. Quickies: Squeeze and release pelvic muscles as fast as five times in a row. Relax 10 seconds, and then repeat. Continue for 5 minutes.



3. Long Haul: Pull pelvic floor muscles as tight as for as long as possible. When feels that the muscle is weaken then relax. Continue for 5 minutes.



APPENDIX - K


19.09.2014 10:31


19.09.2014 11:12


19.09.2014 11:12


19.09.2014 10:32


19.09.2014 11:18